

APPENDIX F
BIOLOGICAL TECHNICAL REPORT,
FOCUSED SURVEY RESULTS,
JURISDICTIONAL DELINEATION

Regional Environmental Consultants

Biological Technical Report for the La Costa Town Square Property, Carlsbad, California.

June 28, 2006

Regional Environmental Consultants

Focused Survey Results of the Fairy Shrimp Surveys on La Costa Town Square Property.

December 19, 2001

Regional Environmental Consultants

Results of Fairy Shrimp Dry Season Survey on La Costa Town Square Property.

March 2, 2004

Glenn Lukos Associates

Significant Nexus Analysis for the La Costa Town Square Property, an Approximate 81.4-Acre Property, Located in the City of Carlsbad, San Diego County, California.

March 28, 2008

Regional Environmental Consultants

Revised Biological Report and Impact Analysis for the Offsite Access Road for La Costa Town Square in Carlsbad, California.

August 12, 2008

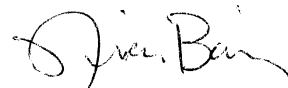
Biological Technical Report for the La Costa Town Square Property Carlsbad, California

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1.0 Summary of Findings

The 81.4-acre La Costa Town Square project site is located in the city of Carlsbad in western San Diego County and is transected by Rancho Santa Fe Road and bordered by La Costa Avenue to the south. This property, previously known as the MAG Properties, was included in the Habitat Conservation Plan/Ongoing Multi-Species Plan (HCP/OMSP) for Properties in the Southeast Quadrant of the city of Carlsbad, California. The HCP/OMSP was finalized in 1995 by the City of Carlsbad, Fieldstone, La Costa Associates, and state and federal regulatory agencies to provide for the conservation of sensitive wildlife and habitat in the context of a proposed large-scale development plan.

Six sensitive vegetation communities are present on-site: Diegan coastal sage scrub, disturbed coastal sage scrub, native grassland, non-native grassland, disturbed wetland, and riparian scrub. Ponded areas observed on-site would also be considered a sensitive vegetation community if they are determined to be vernal pools by the City of Carlsbad or resource agencies. Six sensitive plant species, thread-leaved brodiaea, Orcutt's brodiaea, California adolphia, southwestern spiny rush, western dicandra, and Palmer's grappling hook were observed on-site during the current surveys. San Diego thornmint was also previously identified on-site. All seven of these species are covered by the HCP/OMSP. Five sensitive bird species were observed on-site during the current surveys: coastal California gnatcatcher, California horned lark, southern California rufous-crowned sparrow, yellow-breasted chat, and white-tailed kite. Three additional California species of special concern were identified on the site or near the vicinity during previous surveys: loggerhead shrike, western spadefoot, and Belding's orange-throated whiptail. The property also contains wetlands and non-wetland jurisdictional waters of the U.S.

Anticipated biological impacts for this project were assessed according to guidelines set forth in the HCP/OMSP and City of Carlsbad's Habitat Management Plan (HMP). The entire parcel is designed for development resulting in 100 percent impact to biological resources. Impacts to the covered species and their habitats are permitted by the HCP/OMSP and the associated Implementing Agreement. Additional mitigation is recommended for impacts to thread-leaved brodiaea and Orcutt's brodiaea based on sensitivity status under the HMP, even though they are a covered species under the HCP/OMSP. Impacts to jurisdictional wetlands and waters will require additional mitigation. Impacts to the jurisdictional waters and wetlands will also require permitting by local, state, and federal regulatory agencies.

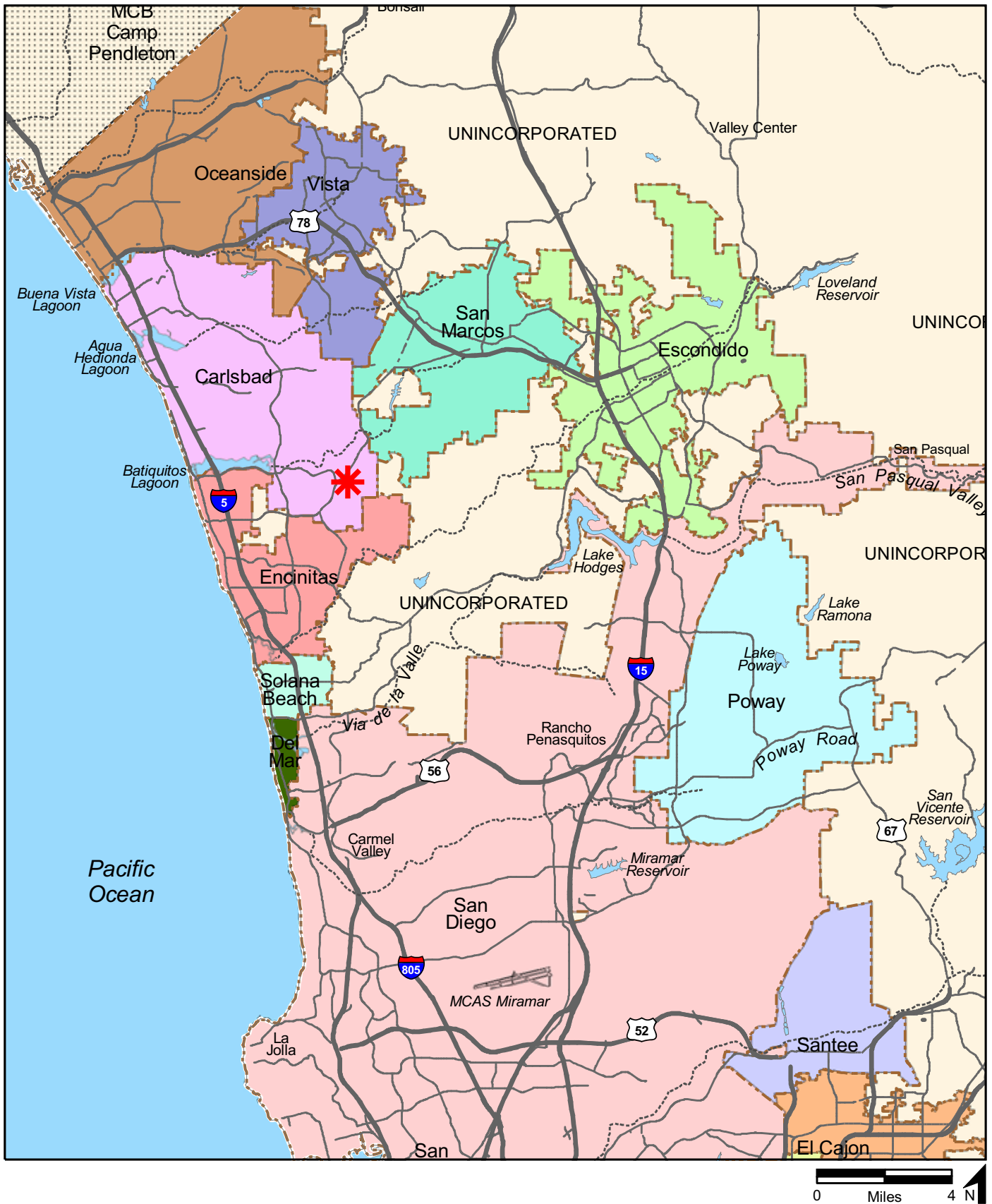
2.0 Introduction

The 81.4-acre La Costa Town Square project site is located in the city of Carlsbad in western San Diego County (Figure 1). The majority of the site is in the southwestern corner of Section 31, Township 12 South, and Range 3 West with a small section of the southern portion of the site within the Los Encinitos Land Grant and Civil Colony of the U.S. Geological Survey (USGS) Rancho Santa Fe quadrangle 7.5-minute topographic map (Figure 2; USGS 1994). The northern portion of the site is transected by Rancho Santa Fe Road and bordered by La Costa Avenue to the south (Figure 3).

A biological technical report was completed for La Costa Town Square project by RECON in 2003 (RECON 2003). Since that time, the portion of Rancho Santa Fe Road that transects the site was improved. This resulted in large sections of disturbance on the site. As a result, the biological resources on-site are being reassessed. This report represents the current biological conditions on-site.

La Costa Town Square, previously known as the MAG Properties, was included in the HCP/OMSP for Properties in the Southeast Quadrant of the City of Carlsbad, California which was finalized in 1995 (City of Carlsbad et al. 1995). This document was created by the City of Carlsbad, Fieldstone, La Costa Associates, California Department of Fish and Game (CDFG), and U.S. Fish and Wildlife Service (USFWS) to provide for the conservation of sensitive wildlife and habitat in the context of a proposed large-scale development plan. The HCP/OMSP covers an area of 1,940.2 acres within two plan area components: the northwest component located north of Alga Road and east of El Camino Real and the Rancheros/Southeast II component located to the southeast. La Costa Town Square is located in the southwestern corner of the Rancheros/Southeast II component. The HCP/OMSP identifies 66 species of concern and provides an impact analysis of the proposed development in regards to these species. In addition, the plan provides for the dedication of open space both on-site and off-site as mitigation for impacts to the species of concern and affiliated habitat.

Since the completion of the HCP/OMSP, the City of Carlsbad created and adopted the Habitat Management Plan (HMP) for Natural Communities in the City of Carlsbad (City of Carlsbad 2004). The HMP is a subarea plan of the Multiple Habitat Conservation Plan (MHCP) that was prepared for the northern subregion of San Diego County (SANDAG 2003). The HMP designates a natural habitat preserve system and provides a regulatory framework for determining impacts and designating mitigation associated with proposed projects. The HMP document identifies a series of focused planning areas within which some lands will be dedicated for preservation of native habitats. These areas contain both “hard line” areas that will be preserved as open space and “soft line” areas that will include both development and open space to be determined through the planning process. Mitigation requirements for impacts to biological resources are provided in the HMP (City of Carlsbad 2004).



 Project location

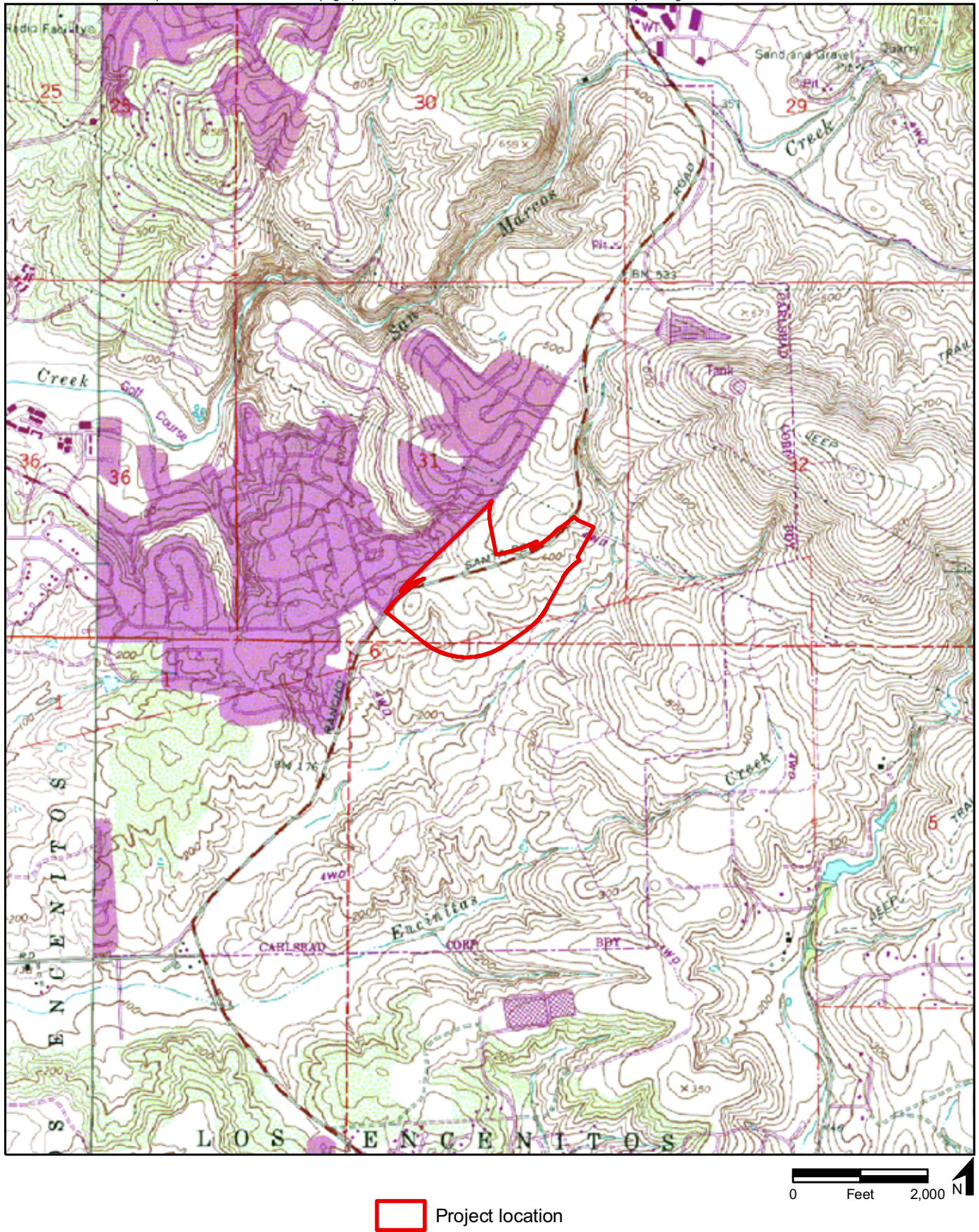


FIGURE 2

Project Location on USGS Map



 Project Boundary

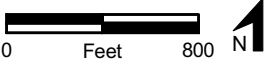


FIGURE 3
Project Area on Aerial Photograph

As stated in the City of Carlsbad HMP under Section C, Description of the Plan Area's Assessment of Conditions and Options, "A substantial portion of the remaining habitat lands are covered by existing take authorizations, primarily the Fieldstone (aka Bank of America/Villages of La Costa) Habitat Conservation Plan which was approved in 1995. This plan involves some of the highest quality coastal sage scrub in the City. Because the HCP is already approved, the City and wildlife agencies have no ability to require further conservation within the area" (City of Carlsbad 2004). Hence, even though the La Costa Town Square project is located within the jurisdiction of the City of Carlsbad's HMP, most mitigation requirements have already been accomplished by the HCP/OMSP.

General biological survey was conducted in 2006 to map current vegetation communities and to assess the presence or potential for presence of sensitive floral and faunal species. In addition, a focused survey was conducted for the coastal California gnatcatcher (*Polioptila californica californica*) according to USFWS survey protocol. Two sensitive plant surveys were also conducted. This report provides biological data and background information required for environmental analysis by the California Environmental Quality Act (CEQA). Previous surveys conducted on-site are incorporated into this report.

3.0 Survey Methods

A general biological survey was conducted on April 11, 2006 by RECON biologists Nicole Bailey and Wendy Loeffler. All plant and animal species observed or detected were documented. Plant species that could not be identified in the field were brought back to the office for closer inspection and positive identification. Biological resources were mapped on a 1 inch equals 200 feet aerial photo overlaid with recently flown orthotopography. Rare plant surveys were conducted by RECON biologists Nicole Bailey and Matt Guilliams on May 11, 2006 and May 30, 2006.

Focused surveys for coastal California gnatcatcher were conducted by Wendy Loeffler (Permit TE-839084) and Nicole Bailey on April 11, 2006 and by Amy Clark (Permit TE-797665) and Erin McKinney on May 4 and May 16, 2006. These surveys were conducted according to the USFWS coastal California gnatcatcher survey guidelines (USFWS 1997). The specific survey dates, times, and weather conditions of each survey are provided in Table 1.

TABLE 1
SURVEY DATES, SURVEY TYPES, SURVEYORS, AND CONDITIONS

Date	Survey Type	Surveyors	Beginning Conditions	Ending Conditions
04/11/06	General Biological Survey; CAGN survey 1	N. Bailey, W. Loeffler	7:00 A.M.; 58° F; 1-3 mph; 2% cover	11:30 A.M.; 68° F; 1-3 mph; 10% cover
05/04/06	CAGN survey 2	A. Clark, E. McKinney	8:30 A.M.; 68° F; 0-3 mph; 100% cover	12:00 P.M.; 68° F; 1-5 mph; 75% cover
05/11/06	Rare Plant Survey	N. Bailey, M. Guilliams	8:30 A.M.; 63° F; 0-3 mph; 100% cover	3:30 P.M.; 64° F; 7-10 mph; 100% cover
05/16/06	CAGN survey 3	A. Clark, E. McKinney	8:00 A.M.; 63° F; 1-3 mph; 100% cover	11:15 A.M.; 60° F; 2-5 mph; 60% cover
05/30/06	Rare Plant Survey	N. Bailey, M. Guilliams	7:30 A.M.; 63° F; 0-3 mph; 0% cover	12:15 P.M.; 71° F; 0-3 mph; 0% cover

CAGN = coastal California gnatcatcher; ° F = degrees Fahrenheit; mph = miles per hour; % = percent

A wetland delineation was conducted by Glenn Lukos Associates, the results of which are provided under separate cover (Glenn Lukos Associates 2006). This information has been summarized in this report.

Limitations to the compilation of a comprehensive faunal checklist were imposed by seasonal factors. Migratory bird species that may occur on the property during late summer or fall would not have been present during the survey. Since surveys were performed during the day, nocturnal animals were detected only by sign.

Floral nomenclature for common plants follows Hickman (1993) and for sensitive plants California Native Plant Society (CNPS; 2001). Vegetation community classifications follow the HMP (City of Carlsbad 2004) and Holland (1986). Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (1998) and Unitt (1984 and 2004); for mammals, Jones et al. (1997); and for amphibians and reptiles, Crother (2001) and Crother et al. (2003). Assessments of the sensitivity of species and vegetation communities are based primarily on CNPS (2001), State of California (2005a, 2005b, 2005c, 2005d, 2006), and Holland (1986).

4.0 Existing Conditions

4.1 Topography and Soils

The property ranges in elevation from 440 feet mean sea level (MSL) on the easternmost section to 270 feet MSL on the southernmost section. Most of the property slopes to the west or southwest.

Soil types present on-site consist of Altamont clay, Huerhuero loams, Salinas clay loam, and San Miguel-Exchequer rocky silt loam. Each of these soil types is described below,

using information from the U.S. Department of Agriculture (USDA) Soil Survey for San Diego Area, California (1973).

Altamont clay, 15 to 30 percent slopes, covers two small sections of the southern edge of the property. This soil type consists of well-drained clays that formed in material weathered from calcareous shale. This type of Altamont soil occurs on uplands and has an average slope of 17 percent. Soil depth ranges from 4 to 18 inches and covers soft calcareous shale. The permeability of this soil type is slow, runoff is medium to rapid, and the erosion hazard is moderate to high.

The Huerhuero series consists of moderately well-drained loams with a clay subsoil that developed in sandy marine sediments. Huerhuero loam, 5 to 9 percent slopes, eroded, is present on the western section of the property. This soil is moderately sloping and has moderate sheet erosion. Huerhuero loam, 9 to 15 percent slopes, eroded, is located south of the Huerhuero loam, 5 to 9 percent slopes, eroded, on-site. This soil is strongly sloping and has moderate sheet erosion. Runoff is medium and the erosion hazard is moderate.

The Salinas series consists of well-drained and moderately well-drained clay loams that formed in sediments washed from Diablo, Linne, Las Flores, Huerhuero, and Olivenhain soils. These soils are on floodplains and alluvial fans. A small section of Salinas clay loam, 2 to 9 percent slopes, is located on the southeastern boundary of the property near the drainage that is just off-site. This soil is gently to moderately sloping. Runoff is slow to medium and the erosion hazard is slight to moderate.

The majority of the site is comprised of San Miguel-Exchequer rocky silt loams, 9 to 70 percent slopes. This complex occurs on mountainous uplands, at elevations of 400 to 3,300 feet. San Miguel silt loam is slowly permeable in the subsoil; Exchequer silt loam is moderately permeable. Both soils have good drainage, medium to rapid runoff, and a moderate to very high erosion hazard.

4.2 Botany

The following sections describe the vegetation communities present on-site. Six vegetation communities were identified within the survey area: Diegan coastal sage scrub, disturbed coastal sage scrub, native grassland, non-native grassland, riparian scrub, and disturbed wetland. Six ponded areas were also identified. Two land cover types, disturbed and developed, are also present on-site. The vegetation communities and land cover types are shown on Figure 4 and summarized in Table 2.

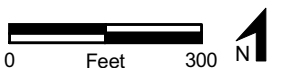
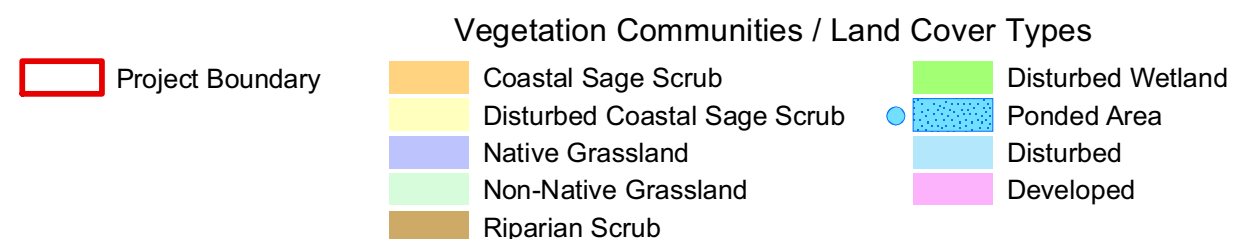
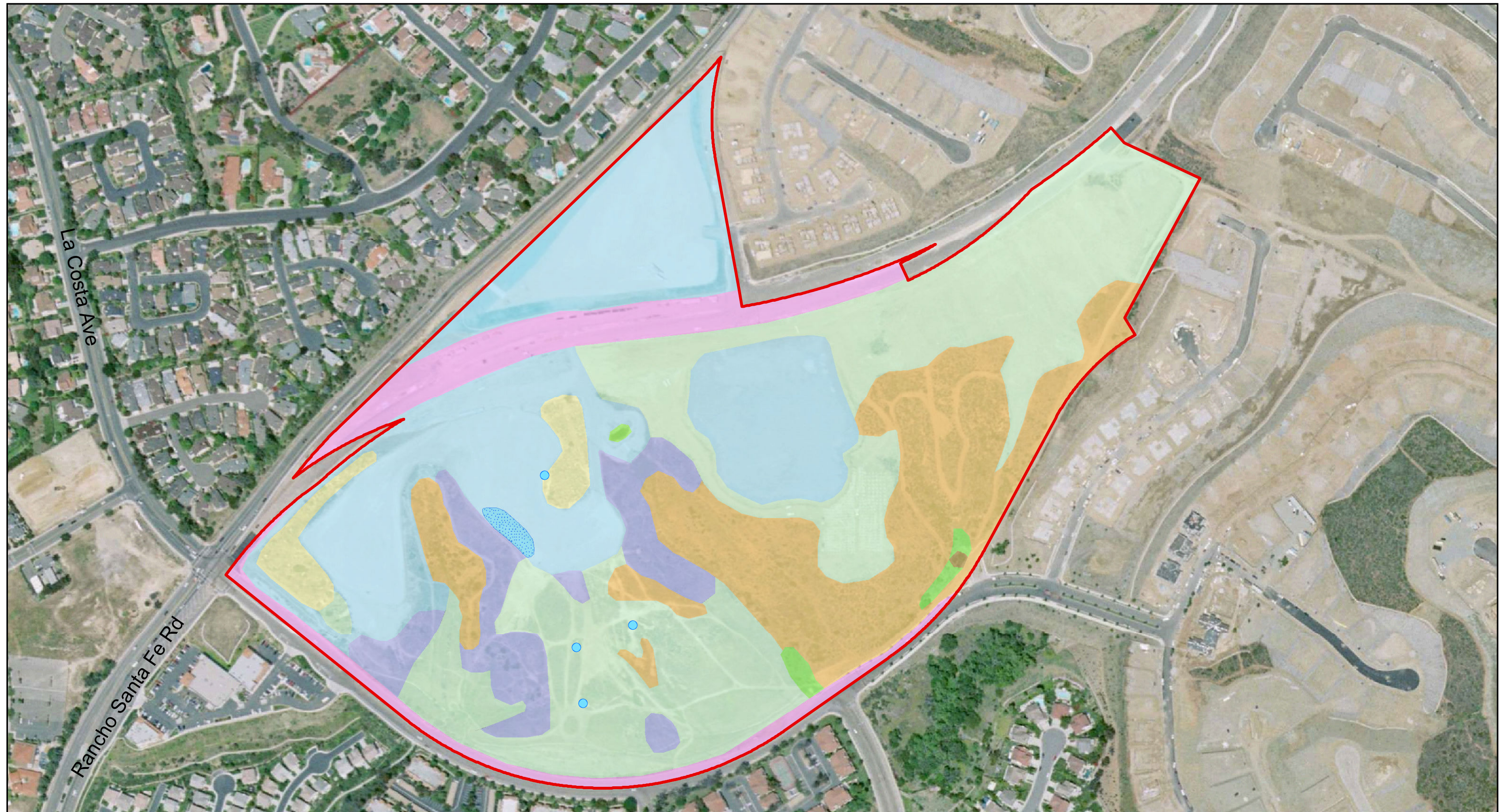


TABLE 2
VEGETATION COMMUNITIES

Vegetation Community and Land Cover Types (HMP Habitat Group)	Total Acres
Coastal sage scrub- Gnatcatcher occupied (Group C)	15.3
Disturbed coastal sage scrub (Group D)	2.1
Native grassland (Group B)	5.6
Non-native grassland (Group E)	27.3
Riparian scrub (Group A)	0.2
Disturbed wetland (Group A)	0.3
Disturbed (Group F)	24.2
Developed (N/A)	6.4
TOTAL	81.4

The vegetation mapping reflects the current conditions on the property, including the grading associated with the Rancho Santa Fe Road improvements and other adjacent developments. A total of 86 plant species were identified on-site. Of this total, 53 (62 percent) are species native to southern California and 33 (38 percent) are introduced species. A complete list of observed plant species is provided in Attachment 1.

4.2.1 Diegan Coastal Sage Scrub (15.3 acres) and Disturbed Coastal Sage Scrub (2.1 acres)

Diegan coastal sage scrub is generally found on dry slopes at lower elevations from Los Angeles County south to Baja California (Holland 1986). On-site, this community is present in the canyons south of Rancho Santa Fe Road and a few other remaining patches totaling approximately 15.3 acres. The most common shrubs present include California sagebrush (*Artemisia californica*), common encelia (*Encelia californica*), black sage (*Salvia mellifera*), and California buckwheat (*Eriogonum fasciculatum*). Native bunch grasses (*Nassella* spp.) are a common understory plant in the sparser areas of this community. Non-native grasses such as slender wild oats (*Avena barbata*) and brome grasses (*Bromus* spp.) are present as well.

Disturbed coastal sage scrub is comprised of the same low-growing, aromatic, drought-deciduous plants as Diegan coastal sage scrub, but has a higher percentage of non-native weedy species. There are approximately 2.1 acres of this community on-site. Dominant species present in this community include California sagebrush, common encelia, California buckwheat, laurel sumac (*Malosma laurina*), and lemonadeberry (*Rhus integrifolia*). The disturbed coastal sage scrub on the western side of the property is dominated by the low-growing California broom (*Lotus scoparius*), which is generally an understory species within higher quality coastal sage scrub. Non-native species present in the disturbed coastal sage scrub include black mustard (*Brassica nigra*), fennel (*Foeniculum vulgare*), Russian thistle (*Salsola tragus*), red-stemmed filaree

(*Erodium cicutarium*), and non-native grasses. This community is generally less dense than the higher-quality, undisturbed Diegan coastal sage scrub.

4.2.2 Native Grassland (5.6 acres)

Approximately 5.6 acres of native grassland is present in and around the non-native grasslands in the southwest corner of the site. This vegetation community generally consists of native perennial bunch grasses but is often partially converted to non-native annual grasslands by the invasion of exotic annual grasses. Native grasslands often have a large component of non-native grasses but are distinguished as native when the cover by native grass species is 10 percent or greater. It is found on many soil types and often transitions into coastal sage scrub habitat. Native grasslands on-site are dominated by purple needlegrass (*Nasella pulchra*), fascicled tarweed (*Hemizonia fasciculatum*), and blue-eyed grass (*Sisyrinchium bellum*) intermixed with non-native grasses. Within the native grasslands on-site are sensitive plant species including Orcutt's brodiaea (*Brodiaea orcuttii*).

Sections of the native grassland have friable clay soils that have limited plant growth in these clay lenses. The clay lens areas are dominated by native species including dot-seed plantain (*Plantago erecta*), Palmer's grappling hook (*Harpagonella palmeri*), fascicled tarweed, and the non-native hedypnois (*Hedypnois cretica*).

4.2.3 Non-Native Grassland (5.6 acres)

Non-native grassland is characterized by a dense to sparse cover of annual grasses reaching to three feet high, which may include numerous native wildflowers, particularly in years of high rainfall. These annuals germinate with the onset of the rainy season and set seeds in the late winter or spring. With a few exceptions, the plants are dead through the summer-fall dry season, persisting as seeds. Non-native grasslands are usually found on fine-textured, usually clay soils, that range from being moist or waterlogged in the winter to being very dry during the summer and fall.

Non-native grasses on-site consisted of slender wild oat, smooth brome (*Bromus hordeaceus*), foxtail chess (*Bromus madritensis rubens*), and wild barley (*Hordeum murinum*). The dominance of non-native grasses and other annual weed species varies throughout the site depending on the level of disturbance. Some areas are more dominated by black mustard or fennel. Other non-natives present include Russian thistle, red-stemmed filaree, and cardoon (*Cynara cardunculus*).

Three ponded areas are located within the non-native grasslands on-site (see Figure 4). All of the pools are low quality, either supporting non-native grasses or weedy species and appear to have created through disturbance and compaction of the soil. Two of the depressions contain grass-poly (*Lythrum hyssopifolium*), which can occur in vernal

pools. All of the pools are primarily road ruts and did not contain any vernal pool indicator species. Given the disturbed nature of the ponded areas, the lack of any typical vernal pool topography (i.e., mima mound), and the lack of native vernal pool indicator plant species, these basins do not appear to be naturally occurring vernal pools.

The sensitive plant species thread-leaved brodiaea (*Brodiaea filifolia*) occurs within the non-native grasslands on-site.

4.2.4 Riparian Scrub (0.2 acre)

A small seep (0.2 acre) is present on the eastern edge of the property. A few arroyo willows (*Salix lasiolepis*), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), and cattails (*Typha* sp.) are present. The riparian scrub occurs within a small section of disturbed wetland.

4.2.5 Disturbed Wetland (0.3 acre)

Three areas on-site support disturbed wetlands. Two of these are located at the southern limits of ephemeral drainages. The third disturbed wetland area is located in a basin left by the grading that occurred on-site. These areas contained water or saturated soils during the spring surveys and support plant species including cattails, southwestern spiny rush, curly dock (*Rumex crispus*) and annual beard grass (*Polypogon monspeliensis*).

4.2.6 Disturbed (24.2 acres)

Disturbed areas are present on approximately 24.2 acres of the site and include the areas graded when the portion of Rancho Santa Fe Road that transects the site was improved. Disturbed areas include construction impacts from adjacent developments, dirt trails and access roads including bare areas, and areas dominated by weedy, non-native species. Plant species that were most commonly seen in these area include black mustard, non-native grasses, cardoon, and fennel.

One large and one small ponded areas are located within the disturbed habitat on-site (see Figure 4). The larger pond is devoid of vegetation but contained Pacific treefrog tadpoles in the spring of 2006. The smaller pond is supporting non-native grasses and weedy species. Both ponds appear to have been created through disturbance and compaction of the soil. Given the disturbed nature of the ponded areas, the lack of any typical vernal pool topography (i.e., mima mound), and the lack of native vernal pool indicator plant species, these basins do not appear to be naturally occurring vernal pools.

4.2.7 Developed (6.4 acres)

Developed areas are present on approximately 6.4 acres of the site and include the developed roadways including La Costa Avenue and Rancho Santa Fe Road.

4.3 Zoology

Wildlife species observed on-site are typical of species found in scrub, grassland, and disturbed communities located in San Diego County. Wildlife species detected on-site or with the potential for occurrence are discussed below. A complete list of detected wildlife species is provided in Attachment 2.

4.3.1 Amphibians

Amphibians require moisture for at least a portion of their lifecycle, with many requiring a permanent water source for habitat and reproduction. Terrestrial amphibians have adapted to more arid conditions and are not completely dependent on a perennial or standing source of water. These species avoid desiccation by burrowing beneath the soil or leaf litter during the day and during the dry season.

The only amphibian species detected on-site during the 2006 surveys was Pacific treefrog (*Pseudacris regilla*) adults and tadpoles. Western spadefoot toad tadpoles were detected in a ponded area during a site visit in June of 2003 (P&D Environmental 2003).

4.3.2 Reptiles

The diversity and abundance of reptile species varies with habitat type. Many reptiles are restricted to certain vegetation communities and soil types although some of these species will also forage in adjacent communities. Other species are more ubiquitous, using a variety of vegetation types for foraging and shelter.

Western fence lizards (*Sceloporus occidentalis*) were observed on-site. A side-blotched lizard (*Uta stansburiana*) and Belding's orange-throated whiptails (*Aspidoscelis hyperythra beldingi*) have been observed on-site during previous surveys (RECON 1990, 2003), but were not observed in 2006. Since most surveys were conducted on cool, cloudy mornings, conditions were suboptimal for reptile species to be observed. It is likely that these species are still present on-site.

4.3.3 Birds

The diversity of bird species varies with respect to the character, quality, and diversity of vegetation communities present on a site. Coastal sage scrub typically supports a fairly

high diversity of bird species while disturbed habitats tend to support a low diversity of species.

Species observed within the coastal sage scrub on-site include Bewick's wren (*Thyromanes bewickii*), bushtit (*Psaltirparus minimus minimus*), yellow-rumped warbler (*Dendroica coronata*), Cassin's kingbird (*Tyrannus vociferans vociferans*), Anna's hummingbird (*Calypte anna*), California towhee (*Pipilo crissalis*), and California thrasher (*Toxostoma redivivum redivivum*). Coastal California gnatcatchers (*Polioptila californica californica*) were also observed within the coastal sage scrub on-site.

Mourning doves (*Zenaida macroura marginella*), house finches (*Carpodacus mexicanus frontalis*), and western meadowlarks (*Sturnella neglecta*) were commonly observed within the grasslands and disturbed areas.

A white-tailed kite (*Elanus leucurus*) was observed flying over the site.

4.3.4 Mammals

Coastal sage scrub and grassland communities typically provide cover and foraging opportunities for a variety of mammal species. Many mammal species are nocturnal and must be detected during daytime surveys by observing their sign, such as tracks, scat, and burrows.

Desert cottontail (*Sylvilagus audubonii*), coyote (*Canis latrans*), and woodrat (*Neotoma* spp.) were observed on-site.

4.4 Sensitive Biological Resources

For purposes of this report, species will be considered sensitive if they are: (1) listed by state or federal agencies as threatened or endangered or are proposed for such listing; (2) on Lists 1B or 2 of the CNPS *Inventory of Rare and Endangered Plants of California* (CNPS 2001); (3) listed as rare, endangered, or threatened in the Natural Diversity Database (NDDDB) (State of California 2005a, 2005b); (4) included on the HCP/OMSP list of covered species; (5) included on the HMP (City of Carlsbad 2004), or MHCP (SANDAG 2003) list of species evaluated for coverage or list of narrow endemic plant species; or (6) considered sensitive by other local conservation organizations or specialists. Noteworthy plant species are considered to be those that are on List 3 (more information about the plant's distribution and rarity needed) and List 4 (plants of limited distribution) of the CNPS Inventory. Sensitive habitat types are those identified by the HMP (City of Carlsbad 2004), NDDDB (State of California 2006), Holland (1986), or considered sensitive by other resource agencies. Locations of sensitive biological resources are noted on Figure 5.



Project Boundary

Coastal California gnatcatcher pair
(observed 4/11/06, 5/4/06, 5/16/06, 5/30/06)
Coastal California gnatcatcher individuals
(observed 4/11/06, 5/4/06, 5/16/06, 5/30/06)

Rufous-crowned sparrow
Yellow-breasted chat
Blue grosbeak

Orcutt's brodiaea
Palmer's grappling hook
Western dichondra

Orcutt's brodiaea
Palmer's grappling hook
California adolphia
Thread-leaved brodiaea
Small-flowered microseris
Southwestern spiny rush

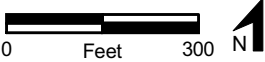


FIGURE 5
Sensitive Species

HCP/OMSP covered species are those that are included in the incidental take authorization issued to the project proponents. The term *non-covered species* is sometimes used to identify species that are not included in the incidental take authorization. The majority of the impacts to sensitive habitats and covered sensitive species are mitigated through the dedication of the approved conservation areas developed as a part of the HCP/OMSP process. State and federal agencies regulate non-covered sensitive species and sensitive vegetation communities.

Determination of the potential occurrence for listed, sensitive, or noteworthy species are based upon known ranges and habitat preferences for the species (Zeiner et al. 1988a, 1988b, 1990; CNPS 2001); species occurrence records from the NDDDB (State of California 2006); and species occurrence records from previous studies on-site and other sites in the vicinity of the project site.

4.4.1 Sensitive Vegetation Communities

Six communities on-site are considered sensitive by the City of Carlsbad and/or resource agencies due to either restricted range or cumulative losses throughout the region. These communities are Diegan coastal sage scrub, disturbed coastal sage scrub, native grassland, non-native grassland, disturbed wetland, and riparian scrub.

The ponded areas would also be considered a sensitive community if they were determined to be vernal pools. Given the lack of native vernal pool indicator plant species and the negative results of the protocol focused surveys for endangered fairy shrimp species (RECON 2003) in the ponded areas, these basins do not appear to be naturally occurring vernal pools.

4.4.2 Sensitive Plant Species

Three sensitive plant species were observed on-site during the current surveys: thread-leaved brodiaea (*Brodiaea filifolia*), Orcutt's brodiaea (*Brodiaea orcuttii*), and California adolphia (*Adolphia californica*). Four noteworthy plant species were also observed on-site: Palmer's grappling hook (*Harpagonella palmeri* var. *palmeri*), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), western dichondra (*Dichondra occidentalis*), and small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*). All of these species except small-flowered microseris are covered by the HCP/OMSP (City of Carlsbad et al. 1995) and the Carlsbad HMP (City of Carlsbad 2004). The location of all sensitive plant species observed during the 2006 surveys are shown on Figure 5.

4.4.2.1 Sensitive Plant Species Observed

Thread-leaved brodiaea (*Brodiaea filifolia*). Thread-leaved brodiaea is a California endangered species, federally threatened species (State of California 2005d), a CNPS

List 1B species (CNPS 2001). This species is also covered under the HCP/OMSP (City of Carlsbad et al. 1995), the MHCP (SANDAG 2003), and as a narrow endemic species under the HMP (City of Carlsbad 2004). This perennial bulbiferous herb in the lily family (Liliaceae) has several linear leaves that may reach 16 inches in height; its leafless flowering stalk bears blue or red-purple flowers in May and June. This plant may occur in coastal sage scrub, chaparral, and cismontane woodland, but is most commonly found in heavy clay soils in native grasslands or in association with vernal pools (CNPS 2001). Nearly half of known existing populations are clustered around the cities of Vista, San Marcos, and Carlsbad. Thread-leaved brodiaea is restricted to clay, loamy sand, or alkaline silty-clay soils, and is typically found on gentle hillsides, in valleys, or in floodplains (USFWS 1998).

Thread-leaved brodiaea is difficult to distinguish from grasses, unless surveyed during its flowering season. It is a dynamic species. Population densities vary widely from year to year. In addition, this below average rainfall year may have resulted in a below average population density. Surveys conducted in an average rainfall year may result in a higher population count or greater range than the population present on-site

Two surveys were conducted to locate this species during the blooming period. During the first survey, 94 individuals were located within the non-native grasslands in the center of the southern section of the property. During the second survey, 121 individuals were located for a total of 215 thread-leaved brodiaea identified (see Figure 5).

Orcutt's brodiaea (*Brodiaea orcuttii*). Orcutt's brodiaea is covered under the HCP/OMSP (City of Carlsbad et al. 1995), the MHCP (SANDAG 2003), and as a narrow endemic species under the HMP (City of Carlsbad 2004). It is also a CNPS List 1B species (CNPS 2001) that is found only in San Diego County and Baja California, Mexico. It is a perennial bulb that generally occurs in grasslands and woodlands in association with vernal pools, streams, and seeps.

Orcutt's brodiaea is also difficult to distinguish from grasses, unless surveyed during its flowering season. It too is a dynamic species. Population densities vary widely from year to year. In addition, this below average rainfall year may have resulted in a below average population density. Surveys conducted in an average rainfall year may result in a higher population count or greater range than the population present on-site

A population of this species was identified on the site in 1986 as reported in the NDDDB (State of California 2006). The HCP/OMSP records only two populations of five individuals each within the Rancheros-Southeast II component (City of Carlsbad et al. 1995). During the May 30, 2006 rare plant survey, 151 Orcutt's brodiaea were identified at the head of the center drainage (see Figure 5).

California adolphia (*Adolphia californica*). This xeric shrub is a CNPS List 2 species (CNPS 2001) that occurs in Diegan coastal sage scrub, often associated with California

buckwheat and California sagebrush. California adolphia is present and often a dominant species within the Diegan coastal sage scrub in several locations throughout the site.

Three patches of California adolphia were identified within the southeast portion of the site (see Figure 5). Approximately 80 plants were observed within a 0.3-acre area.

Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*). Spiny rush is a noteworthy species because it is a CNPS List 4 species (CNPS 2001). It is a large bushy rush commonly found in marsh habitats in San Diego County. It can be found in a variety of soil types wherever ponded water or saturated soils are present. This species is common in the cismontane alkali marsh and uncommon in the freshwater marsh and southern willow scrub habitat on-site.

Southwestern spiny rush is present within the small riparian scrub area on the south side of the site (see Figure 5). Approximately 20 plants were observed within a 0.03-acre area.

Palmer's grappling hook (*Harpagonella palmeri* var. *palmeri*). Palmer's grappling hook is noteworthy because it is a CNPS List 4 species (CNPS 2001). This small herbaceous annual in the borage family (Boraginaceae) flowers from March to May, then produces spiny nutlets that look like tiny grappling hooks. It may be found in grasslands, coastal sage scrub, and chaparral habitats below 2,700 feet (CNPS 2001), but in San Diego is typically found in open grassy slopes or open coastal sage scrub habitat on clay soils.

Palmer's grappling hook is found in numerous open areas throughout the western half of the property. It occurs in the clay lens areas within the native grasslands. Approximately 380 individuals were identified (see Figure 5).

Western dichondra (*Dichondra occidentalis*). Western dichondra is noteworthy because it is a CNPS List 4 species (CNPS 2001). This small perennial herb in the morning-glory family (Convolvulaceae) can form a ground cover and flowers from March to May. Western dichondra is found in chaparral, cismontane woodland, and coastal sage scrub, where it often grows hidden beneath shrubs. It also may occur after fire in these habitats as well as in rocky outcrops in grasslands.

Western dichondra is present in three small areas within the non-native grasslands and coastal sage scrub on the western side of the property (see Figure 5).

Small-flowered microseris (*Microseris douglasii* ssp. *platycarpa*). Small-flowered microseris is noteworthy because it is a CNPS List 4 species (CNPS 2001). This species is not covered by the HCP/OMSP (City of Carlsbad et al. 1995) or the HMP (City of Carlsbad 2004). Small-flowered microseris is a small annual herb in the sunflower family

(Asteraceae). It is found in inland clay soils, grasslands, and often near vernal pools (Hickman 1993). It was found on-site in the clay lens areas within the native grassland (see Figure 5).

4.4.2.2 Sensitive Plant Species Not Observed

Several other sensitive species are known to occur in the vicinity of the project site and are considered as potentially occurring on-site based on vegetation communities identified. In addition, a number of other sensitive species have been previously observed within the Rancheros/Southeast II component of the HCP/OMSP, which includes the La Costa Town Square parcel. This includes San Diego thornmint (*Acanthomintha ilicifolia*), which was identified in the NDDb as historically occurring on-site (State of California 2006). Attachment 3 summarizes the status, habitats, and results of the botanical survey for each of these potentially occurring species, with codes explained in Attachment 4. The paragraphs below describe the federally and/or state listed species that have a potential to occur on-site.

San Diego thornmint (*Acanthomintha ilicifolia*). San Diego thornmint is federally listed as threatened and state listed as endangered (State of California 2005d), a CNPS List 1B species (CNPS 2001), and is a narrow endemic species under the HMP (City of Carlsbad 2004). San Diego thornmint is an annual species restricted in distribution to San Diego County and Baja California, Mexico, where it occurs on friable clay soils on mesas and slopes, and is associated with coastal sage scrub and chaparral habitats. In San Diego County, this plant is known from Encinitas south to Otay (Beauchamp 1986).

A population of this species was mapped on the site in 1986 as reported in the NDDb (State of California 2006). There is a potential that this population should have been mapped off-site to the south of La Costa Avenue given the textual description of the plant's location; however, the habitat on the La Costa Town Square site is similar and provides suitable habitat to support this species. Studies conducted in support of the HCP/OMSP did not detect the species within any of the plan components and listed a low potential for occurrence (City of Carlsbad et al. 1995). Rare plant surveys conducted by RECON in 2006 also did not detect this species.

Spreading navarretia (*Navarretia fossalis*). Spreading navarretia is a federal threatened species (State of California 2005d) that is found within vernal pools and playas. This species is also covered under the MHCP (SANDAG 2003), and as a narrow endemic species under the HMP (City of Carlsbad 2004). It blooms between April and June and is known from San Luis Obispo County to Baja California, Mexico. This species is not covered by the HCP/OMSP (City of Carlsbad et al. 1995).

This species was not detected within the five ponded areas.

San Diego button-celery (*Eryngium aristulatum* var. *parishii*). San Diego button-celery is a state and federal endangered species (State of California 2005d) found within vernal pools in San Diego and Riverside Counties. This species is also covered under the MHCP (SANDAG 2003), and as a narrow endemic species under the HMP (City of Carlsbad 2004). This species is not covered by the HCP/OMSP (City of Carlsbad et al. 1995).

This species was not detected within the six ponded areas.

San Diego goldenstar (*Muilla clevelandii*). San Diego goldenstar is a covered species under the HCP/OMSP (City of Carlsbad et al. 1995), the MHCP (SANDAG 2003), and as a narrow endemic species under the HMP (City of Carlsbad 2004). It is also a CNPS List 1B species (State of California 2005c). This herbaceous perennial in the lily family (Liliaceae) grows one foot tall and has bright yellow flowers in May (Munz 1974). San Diego goldenstar is found below 1500 feet in southwestern San Diego County and northern Baja California, Mexico. It grows in grasslands and vernal pool habitats and on the edges of coastal sage scrub and chaparral. San Diego goldenstar looks somewhat like common goldenstar (*Bloomeria crocea*), but the filaments of San Diego goldenstar sit on a conspicuously raised base (Reiser 2001).

Though common goldenstar was located on-site during the rare plant surveys conducted by RECON in 2006, San Diego goldenstar was not identified.

4.4.3 Sensitive Wildlife

4.4.3.1 Sensitive Wildlife Species Observed

Coastal California gnatcatcher, a federally threatened species was observed on-site. Four other sensitive bird species were observed on-site during the current surveys: California horned lark (*Eremophila alpestris actia*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), yellow-breasted chat (*Icteria virens*), and white-tailed kite (*Elanus leucurus*). Three additional California species of special concern were identified on the site or near the vicinity during previous surveys: western spadefoot, Belding's orange-throated whiptail, and loggerhead shrike (*Lanius ludovicianus*). The locations where these species were located in 2006 are shown on Figure 5. All of these species are described below.

Coastal California gnatcatcher (*Polioptila californica californica*). The coastal California gnatcatcher is federally listed as threatened (State of California 2005c), a CDFG species of special concern (State of California 2005c), and covered by the HCP/OMSP (City of Carlsbad et al. 1995) and the Carlsbad HMP (City of Carlsbad 2004). This bird is a resident species restricted to the coastal slopes of southern California, from Ventura County southward through Los Angeles County, Orange,

Riverside, and San Diego Counties into Baja California, Mexico (USFWS 1993). The coastal California gnatcatcher typically occurs in coastal sage scrub, although this bird also uses chaparral, grassland, and riparian woodland habitats where they occur adjacent to coastal sage scrub. Populations of this species have declined as a result of urban and agricultural development (Unitt 1984; Atwood 1992).

Four territories were identified on this property in 1990 (RECON 1990). Focused surveys conducted in 2001 by RECON biologists did not reveal any coastal California gnatcatchers. Focused surveys conducted in 2006 by RECON biologists identified three territories including one pair and an additional three individual California gnatcatchers within three drainages that still support native habitat on-site (see Figure 5).

California horned lark (*Eremophila alpestris actia*). The California horned lark is a CDFG species of special concern (State of California 2005c), and is covered by the HCP/OMSP (City of Carlsbad et al. 1995). The horned lark (*E. alpestris*) ranges throughout North America. The range of the California horned lark subspecies (*E. a. actia*) is along the coastal slopes of California from Sonoma County to San Diego County and includes most of the San Joaquin Valley (Grinnell and Miller 1944). Horned larks that occur in coastal San Diego County during the breeding season are members of this subspecies, although other subspecies are found in San Diego County during the winter. In San Diego County, the California horned lark typically inhabits areas with sparse vegetation, including sandy shores, grasslands, mesas, and agricultural lands. Decline of this species is generally attributed to urbanization and human disturbance.

California horned larks were observed on-site in 2003 and during the 2006 surveys (RECON 2003).

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). The southern California rufous-crowned sparrow is a CDFG species of special concern (State of California 2005c), and is covered by the HCP/OMSP (City of Carlsbad et al. 1995) and the Carlsbad HMP (City of Carlsbad 2004). This localized resident species ranges throughout southern California, with populations occurring in steep, rocky areas of coastal sage scrub and chaparral habitats. Southern California rufous-crowned sparrows are also known to inhabit grassland areas adjacent to coastal sage scrub (Unitt 1984). Widespread losses of coastal sage scrub habitat as a result of agricultural and urban development have greatly decreased the amount of habitat suitable for rufous-crowned sparrows.

Southern California rufous-crowned sparrows were detected on-site in 2003 and during the 2006 surveys (RECON 2003).

Yellow-breasted chat (*Icteria virens*). The yellow-breasted chat is a CDFG species of special concern (State of California 2005c), and a covered species under the HCP/OMSP (City of Carlsbad et al. 1995), Carlsbad HMP (City of Carlsbad 2004), and

North County MHCP (SANDAG 2003). Yellow-breasted chat breeding range extends from southern California south to central Mexico; their range includes most of the United States (Eckerle and Thompson 2001). Yellow-breasted chats arrive in California to breed during April or May. Breeding occurs in dense brush or scrub, usually along streams or marshy areas with dense riparian woodlands. Destruction of riparian woodlands by development and other human activities has caused population declines and it is possible that brown-headed cowbird (*Molothrus ater*) parasitism may also have contributed to the decline of the species.

One yellow-breasted chat was observed in the coastal sage scrub on the southern border on-site (see Figure 5).

White-tailed kite (*Elanus leucurus*). The white-tailed kite is a California fully protected species (State of California 2005c). Nesting sites of white-tailed kites are considered sensitive. This raptor occurs in coastal lowland areas from Oregon to northern Baja California, Mexico (National Geographic Society 1983). Nesting occurs in riparian woodlands, oaks, or sycamore groves that border grassland or open fields (Unitt 1984). This species is known to roost in communal groups (Unitt 1984). The white-tailed kite forages over open areas and grasslands. White-tailed kite populations in southern California have declined due to the loss of nesting and foraging habitat.

A white-tailed kite was observed flying over head. It has a potential to nest in one of the few oak trees on-site and forage over the grasslands on-site.

4.4.3.2 Sensitive Wildlife Species Observed During Previous Surveys

Western spadefoot (*Spea hammondi*). The western spadefoot toad is a CDFG species of special concern (State of California 2005c) ranging from Shasta County southward into Baja California (Stebbins 1995). It is also a covered species by the HCP/OMSP (City of Carlsbad et al. 1995) and the Carlsbad HMP (City of Carlsbad 2004). Its known elevation range extends from near sea level to 1,363 meters (Zeiner et al. 1988a). This species requires rain pools that pond water for at least three weeks to successfully reproduce. They also require suitable upland habitat in which to burrow and forage. Competing species that threaten the western spadefoot include mosquitofish (*Gambusia affinis*) used for mosquito abatement and the increase in the non-native bullfrog (*Rana catesbeiana*) populations. Conversion of occupied habitat for urbanization or agricultural uses also threatens the continuation of this species.

This species was identified on-site during a previous survey (P&D Environmental 2003).

Belding's orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*). Belding's orange-throated whiptail is a CDFG species of special concern (State of California 2005c), and a covered species by the HCP/OMSP (City of Carlsbad et al.

1995) and Carlsbad HMP (City of Carlsbad 2004). This species ranges from southwestern San Bernardino County to the tip of Baja California, Mexico, in areas of low, scattered brush and grass with loose sandy loam soils. It can be found in open coastal sage scrub, chaparral, washes, streamsides, and other sandy areas with rocks, patches of brush, and rocky hillsides (Stebbins 1985). The orange-throated whiptail feeds primarily on subterranean termites. It is active during the spring and summer months and hibernates during the fall and winter. Adult orange-throated whiptails generally hibernate from late July or early August until late April. The immature whiptail has a shorter inactivity period, usually hibernating from December through March. Hibernating sites are on well-drained slopes with southern exposure and little or no vegetation cover (road cuts tend to be suitable). The orange-throated whiptail has declined within its range as a result of habitat losses and fragmentation (McGurty 1980).

Two Belding's orange-throated whiptails were identified on-site in 1990 (RECON 1990). The habitat remains suitable for this species and it is expected to still be present on-site.

Loggerhead shrike (*Lanius ludovicianus*). The loggerhead shrike is a CDFG species of special concern (State of California 2005c), and is covered by the HCP/OMSP (City of Carlsbad et al. 1995). This species ranges throughout most of the United States and Mexico (National Geographic Society 1987). The loggerhead shrike is a non-migratory species that occurs throughout San Diego County. The loggerhead shrike occupies a variety of habitats including grassland, agricultural areas, chaparral, sage scrub, and desert scrub at elevations less than 3,000 feet (Unitt 1984). Population declines of the loggerhead shrike have been attributed to increases in habitat loss associated with urbanization.

A loggerhead shrike was observed flying over the non-native grassland on the northeast portion of the site in 2003 (RECON 2003; see Figure 5).

4.4.3.3 Sensitive Wildlife Species Not Observed

Several other sensitive animals are known to occur in the vicinity and have a potential to be present on-site. Attachment 5 lists the sensitive species observed on-site and those that could potentially occur on-site based on the ranges and habitat requirements of these species and includes the likelihood of occurrence for these species.

Protocol surveys were conducted in 2001 for San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus woottoni*) in five ponded areas to determine the presence or absence of this species on-site (RECON 2001). USFWS protocols require that surveys be conducted during two consecutive wet (rainy) seasons for the duration the ponds are filled with water or during contiguous wet and dry seasons. Focused wet season surveys were conducted during March and April, 2001 by RECON biologists Wendy Loeffler and Cynthia Jones. Dry season surveys were conducted in five ponded areas in November and December, 2001. Soil samples were

collected by Wendy Loeffler in November and sent to Christopher Rogers of Jones & Stokes for analysis. Neither San Diego fairy shrimp nor Riverside fairy shrimp were detected in any of the ponded areas during either the wet or dry season.

An additional ponded area was detected by P&D Environmental (2003) in June 2003. No fairy shrimp were observed in the pond; however, protocol focused surveys have not been conducted. Given the negative results of the surveys conducted on the other five ponded areas, the potential for occurrence of this species is low. The paragraphs below describe these federally and state listed species that have a potential to occur on-site.

San Diego fairy shrimp (*Branchinecta sandiegonensis*). This fairy shrimp, a state and federally listed species (State of California 2005c), is found in vernal pools and other pooling areas that only pond water during the wet season. The species is adapted to hatch when the pools and pooling areas fill with water. The adults lay cysts that settle in the soil as the pond dries. They are able to remain in this dormant stage until the next time the area fills with water. They are able to complete their reproductive cycle in as little as two weeks.

Riverside fairy shrimp (*Streptocephalus woottoni*). This fairy shrimp, a state and federally listed species (State of California 2005c), is found in vernal pools and other pooling areas that only pond water during the wet season. The species is adapted to hatch when the pools and pooling areas fill with water. They require depths of 30 centimeters or greater to complete their life cycle. The adults lay cysts that settle in the soil as the pond dries. They are able to remain in this dormant stage until the next time the area fills with water. They are able to complete their reproductive cycle in as little as two weeks.

4.4.3.4 Wetland and Non-Wetland Jurisdictional survey

The biological surveys conducted by RECON identified five ponded areas based on the presence of water following several rains. The RECON biological survey also identified one small area of riparian scrub located within one of the western drainages. Three areas of disturbed wetland were also identified including two small areas in the drainages and an additional ponded basin in the disturbed area. A comprehensive wetland delineation has been prepared by Glenn Lukos Associates, Inc. (Glenn Lukos Associates, Inc. 2006). At the time the wetland permit applications are prepared and processed, a detailed review and update of the delineation and associated mitigation will be required prior to issuance of any grading permits.

5.0 Project Impacts and Mitigation Measures

Anticipated biological impacts for this project were assessed according to guidelines set forth in the HCP/OMSP. The entire parcel is designed for development resulting in 100 percent impact to biological resources. Impacts to the covered species and their habitats are permitted by the HCP/OMSP and the associated Implementing Agreement. The HCP/OMSP provides species-specific mitigation measures for some impacts to species of concern and conserved habitats, which are discussed in greater detail below.

5.1 Vegetation Communities

Approximately 17.4 acres of Diegan coastal sage scrub and disturbed coastal sage scrub, 5.6 acres of native grassland, 27.3 acres of non-native grassland, 0.3 acre of disturbed wetland, and 0.2 acre of riparian scrub will be impacted. These impacts are considered significant. These impacts have been mitigated through the dedication of 521.41 acres within the Rancheros/Southeast II component as open space under the HCP/OMSP.

Given the lack of native vernal pool indicator plant species and the negative results of the protocol focused surveys for endangered fairy shrimp species, the pools on-site do not appear to be naturally occurring vernal pools (RECON 2003). The 2006 wetland delineation also did not indicate the presence of vernal pools (Glenn Lukos Associates, Inc. 2006). Therefore, no impacts to vernal pools are expected during the proposed project.

Impacts to disturbed and developed areas are not considered significant and do not require mitigation.

5.2 Sensitive Biological Resources

5.2.1 Sensitive Plant Species

The proposed project will impact sensitive plant species including thread-leaved brodiaea, Orcutt's brodiaea, and California adolphia, and potentially impact San Diego thornmint. These impacts would be considered significant. These species are included in the list of covered species under the HCP/OMSP and the Carlsbad HMP and these impacts are mitigated through the dedication of open space within the area covered in the HCP/OMSP. Impacts to the following noteworthy species would not be considered significant: southwestern spiny rush, Palmer's grappling hook, western dichondra, and

small-flowered mioseris. Impacts to sensitive species listed in Attachment 3 with a potential to occur on-site would be considered significant, but are mitigated under the HCP/OMSP (City of Carlsbad et al. 1995).

Further mitigation should not be required under the Carlsbad HMP since mitigation requirements have been met by the HCP/SOMP. However, since thread-leaved brodiaea and Orcutt's brodiaea are both narrow endemic plant species under the Carlsbad HMP, additional species-specific mitigation is recommended for these two species. Additional mitigation for these two narrow endemic species located on-site will aid in further protection of these species. The bulbs of these two brodiaea species should be relocated to an open space preserve located within the same geographic region with the same soil type. One potential option might be to relocate the brodiaea species into the Rancheros-Southeast II open space dedicated by the HCP/OMSP (City of Carlsbad et al. 1995). In order for the brodiaea relocation to be successful, an appropriate open space preserve location would need to be acquired and approved by the City of Carlsbad. A restoration plan should be prepared detailing the relocation procedures to be used along with a five-year maintenance and monitoring program to ensure survivorship.

5.2.2 Sensitive Wildlife

Eight sensitive wildlife species are expected to be impacted by development of this property: coastal California gnatcatcher, white-tailed kite, yellow-breasted chat, California horned lark, loggerhead shrike, southern California rufous-crowned sparrow, and western spadefoot, Belding's orange-throated whiptail. Impacts to these species would be significant. These species are included in the list of covered species and impacts are mitigated through the dedication of open space within the area covered in the HCP/OMSP. Impacts to sensitive species listed in Attachment 5 with a potential to occur on-site would be considered significant, but are mitigated under the HCP/OMSP thorough the dedication of open space.

Impacts to the endangered San Diego or Riverside fairy shrimp species are not covered by the HCP/OMSP and would be considered significant. These species were not detected on-site during focused surveys. The potential for them to be present within the remaining ponded areas is low given the negative results of the previous focused surveys.

5.2.3 HCP/OMSP Conserved Areas

The HCP/OMSP has designated several areas of conserved habitat within the plan area. Three conservation parcels are identified within the Southeast II component: Parcel A, which is located to the northeast of the project site, and Parcels B and C, located to the north of the site. The project site is not directly adjacent to any of these conserved areas;

however, Parcel A is across the proposed Melrose Avenue. There is a potential for indirect impacts to this conserved parcel from development of the La Costa Town Square property from activities such as construction or installation of lighting within the developed areas. Indirect impacts to areas of conserved habitat would be considered significant.

5.3 Project-Specific Impact Avoidance and Minimization

The HCP/OMSP provides 10 project-specific impact avoidance and minimization measures that must be implemented on projects that will affect conserved areas. Each measure and its applicability to this project are discussed below.

5.3.1 Nest Site Protection

5.3.1.1 Measure

No clearing and grading operations within habitat where the coastal California gnatcatcher is nesting is allowed within the breeding season between February 15 and July 31. Prior to July 31, clearing may occur if it is determined that the birds have already successfully fledged young, are no longer actively nesting, and the young have dispersed from the area. The presence of occupied habitat will be determined by a qualified biologist prior to any clearing or grading that would occur. In addition, removal of any trees occupied by an active raptor nest must be avoided until after the nesting season. A 200-foot buffer surrounding any active raptor nest will also be established where no clearing activities will be allowed until the nesting season is completed (City of Carlsbad et al. 1995).

5.3.1.2 La Costa Town Square Project

This measure will apply to this project because coastal California gnatcatchers were observed on-site during the surveys conducted by RECON in 1990 and 2006 (RECON 1990). If construction is scheduled to occur during the breeding season, a pre-construction clearance survey should be conducted by a qualified biologist prior to the start of construction. If gnatcatchers are not observed, construction could proceed with no restrictions.

This measure will also apply to raptors. If construction is scheduled to begin during the breeding season, a pre-construction clearance survey for raptors should be conducted by a qualified biologist prior to the start of construction. If raptors are not observed, construction could proceed with no restrictions.

5.3.2 Controlled Access and Barriers

5.3.2.1 Measure

Prior to commencement of clearing or grading, access barriers to protect conserved habitat will be built at key entry points. The boundaries of conserved habitat immediately adjacent to the grading area will be flagged by a biologist, and a fence will be installed to prevent disturbance by construction vehicles.

5.3.2.2 La Costa Town Square Project

This measure does not apply because the property is not immediately adjacent to the conserved area.

5.3.3 Noise Levels

5.3.3.1 Measure

Construction activities that create a noise level in excess of 61 decibels in conserved habitat that is occupied by gnatcatchers will be limited to the non-breeding season.

5.3.3.2 La Costa Town Square Project

This measure does not apply because the property is not immediately adjacent to the conserved area and the noise levels from construction activities are not expected to be excessively above ambient levels within the conserved areas.

5.3.4 Storage and Staging Areas

5.3.4.1 Measure

No storage or stockpiling of construction materials will be allowed within the conserved areas and staging areas must be located as far as possible from conserved areas. Trash that could attract scavengers that could prey on sensitive wildlife must be maintained and kept to a minimum. Trash containers with animal-resistant lids must be provided on the site during construction.

5.3.4.2 La Costa Town Square Project

Staging and stockpile areas will not be within conserved areas. The measures regarding trash should be implemented to insure that trash material from the construction site does not blow or get carried into the nearby conserved areas.

5.3.5 Monitoring

5.3.5.1 Measure

During grading and construction adjacent to conserved habitat, a biologist will monitor the adjacent habitat for dust accumulation, erosion of dirt, or other disturbances. If disturbance to the conserved habitat is identified, corrective measures must be taken immediately.

5.3.5.2 La Costa Town Square Project

If typical best management practices are implemented, i.e., erosion control, dust control, etc., there will not be any indirect impact to the conserved areas. A biological monitor would not be necessary since the site is not directly adjacent to the conserved area.

5.3.6 Unavoidable Disturbances of Conserved Habitat

5.3.6.1 Measure

Disturbance to conserved habitat will be avoided to the maximum extent possible. If disturbance is unavoidable and it has been authorized, it will be mitigated by restoration of the affected areas.

5.3.6.2 La Costa Town Square Project

This measure does not apply as the project will not impact conserved habitat.

5.3.7 Fuel Management Zones

5.3.7.1 Measure

Fuel management zones separating conserved habitat from adjacent development will be designed to minimize impacts to native vegetation.

5.3.7.2 La Costa Town Square Project

As the project is not directly adjacent to a conserved area and is separated from any conserved area by the future Melrose Avenue, this measure is not applicable, though the project will need to conform to the City of Carlsbad fuel modification requirements.

5.3.8 Lighting

5.3.8.1 Measure

Lighting within new development adjacent to conserved habitat will be selectively placed, shielded, and directed away from conserved habitat. In addition, lighting from homes abutting conserved habitat will be screened by planting vegetation, and large spot-light-type backyard lighting directed into conserved habitat will be prohibited.

5.3.8.2 La Costa Town Square Project

This measure should be implemented to ensure that large spotlights are not placed in such a manner to cast light into the conserved space.

5.3.9 Landscaping

5.3.9.1 Measure

Invasive species such as giant reed and pampas grass will not be used in landscaped areas directly adjacent to conserved habitat. A list of species that should not be used in landscaping will be provided to home buyers. Additionally, these species will be identified in the Conditions, Codes, and Regulations (CC&Rs) of the homeowner's association as plants to be avoided in landscaping.

5.3.9.2 La Costa Town Square Project

While the project is not directly adjacent, these invasive species could spread into the conserved areas from the property and should be avoided. This measure should be implemented.

5.3.10 Public Information Program

5.3.10.1 Measure

Homeowners, homeowner associations, and the interested public will be informed of ways to avoid impacts to the conserved resources through a public information program developed in cooperation with the City. The program will include: (a) a public information brochure that describes the natural resources and prohibited activities within conserved habitat; and (b) a landscaping and fuel break planning brochure for homeowners and homeowner associations adjacent to conserved habitat.

5.3.10.2 La Costa Town Square Project

While the project is not directly adjacent, a public information program could enhance the quality of the conserved habitat in the vicinity.

5.4 Wetland and Non-wetland Jurisdictional Waters

The proposed project would impact all jurisdictional waters and wetlands on the site. These impacts are not covered by the HCP/OMSP and will require additional mitigation. This generally includes both creation and restoration/enhancement.

Glenn Lukos Associates, Inc. performed a wetland delineation on-site. According to the jurisdictional delineation report, the proposed project “will permanently impact 0.05 acre of U.S. Army Corps of Engineers (USACE) jurisdiction, of which 0.01 acre consists of jurisdictional wetlands. The project will also impact 0.10 acre of USACE isolated waters, of which 0.01 acre consists of wetlands. The project, as proposed, will permanently impact 0.15 acre of CDFG jurisdiction, of which 0.02 acre consists of vegetated riparian habitat” (Glenn Lukos Associates, Inc. 2006). Mitigation for impacts to wetland and non-wetland jurisdictional waters will be determined by Glenn Lukos Associates, Inc.

Any impacts to jurisdictional waters on the site would require an individual 404 permit from USACE, a 1603 Agreement from CDFG, and a 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB). Additionally, the RWQCB would require that all urban runoff generated from any future development on the property be treated before being discharged off-site. This is usually accomplished through the implementation of structural and non-structural Best Management Practices (BMPs) designed for the treatment of stormwater runoff. All permits required for impacts to jurisdictional waters will be handled by Glenn Lukos Associates, Inc.

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ATTACHMENTS

ATTACHMENT 1

ATTACHMENT 1 PLANT SPECIES OBSERVED

Scientific Name	Common Name	Habitat	Origin
<i>Acacia baileyana</i> Benzel	Bailey acacia	CSS	I
<i>Adolphia californica</i> Wats.	California adolphia, spineshrub	CSS	N
<i>Anagallis arvensis</i> L.	Scarlet pimpernel,	NNG	I
<i>Amsinckia menziesii</i> (Lehm.) Nelson & J.F. Macbr.	Rancher's fireweed	CSS, NNG	N
<i>Artemisia californica</i> Less.	California sagebrush	NG, CSS	N
<i>Atriplex semibaccata</i> R.Br.	Australian saltbush	NNG, NG	I
<i>Avena barbata</i> Link	Slender wild oat	NNG, NG, CSS	I
<i>Baccharis pilularis</i> DC.	Coyote bush	RS, CSS	N
<i>Baccharis salicifolia</i> (Ruiz Lopez & Pavón) Pers.	Mule fat, seep-willow	RS	N
<i>Brassica nigra</i> (L.) Koch.	Black mustard	DCSS, CSS, NNG, NG, DIS	I
<i>Brodiaea filifolia</i> Wats.	Thread-leaved brodiaea	NNG, NG	N
<i>Brodiaea orcuttii</i> (E. Greene) Baker	Orcutt's brodiaea	NG	N
<i>Bromus hordeaceus</i> L.	Smooth brome	DCSS, NNG	I
<i>Bromus madritensis</i> L. ssp. <i>rubens</i> (L.) Husnot	Foxtail chess	CSS	I
<i>Calochortus splendens</i> Benth.	Lilac mariposa	NG	N
<i>Calystegia macrostegia</i> (Abrams) Brum	Morning-glory	CSS	N
<i>Carpobrotus edulis</i> (L.) Bolus.	Hottentot fig	DIS	I
<i>Centaurea melitensis</i> L.	Tocolote, star-thistle	CSS, NNG	I
<i>Centaurium venustum</i> (A. Gray) Rob.	Canchalagua	NG	N
<i>Chamaesyce albomarginata</i> (Torrey & A. Gray) Small	Rattlesnake weed	CSS	N
<i>Chenopodium</i> sp.	Goosefoot	DIS	I
<i>Collinsia heterophylla</i> Buist.	Chinese houses	DCSS	N
<i>Cortaderia selloana</i> (Schultes) Asch. & Graebner	Selloa pampas grass	CSS, RS	I
<i>Cryptantha</i> sp.	Cryptantha	CSS	N
<i>Cynara cardunculus</i> L.	Cardoon	NNG	I
<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass	NNG	I
<i>Dichelostemma capitatum</i> Alph. Wood	Blue dicks	DCSS, CSS, NNG, NG	N
<i>Dichondra occidentalis</i> House	Western dichondra	CSS, NNG	N
<i>Eleocharis</i> sp.	Spikerush	DW	N
<i>Encelia californica</i> Nutt.	Common encelia	CSS, DCSS	N
<i>Encelia farinosa</i> Torrey & A. Gray	Brittlebush, incienso	CSS	N
<i>Eremocarpus setigerus</i> (Hook.) Benth.	Dove weed	DIS	N
<i>Eriogonum fasciculatum</i> Benth. var. <i>foliolosum</i> (Nutt.) Abrams	California buckwheat	CSS, DCSS	N

ATTACHMENT 1
PLANT SPECIES OBSERVED
(continued)

Scientific Name	Common Name	Habitat	Origin
<i>Erodium cicutarium</i> (L.) L. Her.	White-stemmed filaree	DIS, NNG	I
<i>Eucalyptus</i> spp.	Eucalyptus	NNG	I
<i>Foeniculum vulgare</i> Mill.	Fennel	CSS, NNG	I
<i>Galium porrigens</i> ssp. <i>porrigens</i> Dempster	Climbing bedstraw	CSS	N
<i>Gnaphalium californicum</i> DC.	Green everlasting	DCSS, DW	N
<i>Gnaphalium stramineum</i> (Kunth)	Cotton-batting plant	CSS	N
<i>Harpagonella palmeri</i> A. Gray	Palmer's grappling hook	NG	N
<i>Hedynois cretica</i> (L.) Dum. - Cours.	Hedynois	CSS, DCSS, NNG, NG	I
<i>Helianthemum scoparium</i> Nutt.	Peak rush-rose	CSS	N
<i>Hemizonia fasciculata</i> (DC.) Torrey & A. Gray	Golden tarplant	CSS, DIS, DW	N
<i>Hesperervax caulescens</i> (Benth) A. Gray	Hogwallow starfish	NG	N
<i>Heteromeles arbutifolia</i> (Lindley) Roemer	Toyon, Christmas berry	CSS	N
<i>Heterotheca grandiflora</i> Nutt.	Telegraph weed	DCSS	N
<i>Hordeum murinum</i> L.	Wild barley	NNG, NG, DIS	I
<i>Isocoma menziesii</i> (Hook. & Arn.) G. Nesom	Coast goldenbush	CSS	N
<i>Juncus acutus</i> L. ssp. <i>leopoldii</i> (Parl.) Snog.	Spiny rush	RS, DW	N
<i>Lamarckia aurea</i> (L.) Moench.	Goldentop	CSS	I
<i>Lotus scoparius</i> (Nutt. in Torrey & A. Gray) Ottley var. <i>scoparius</i>	California broom	CSS, DCSS, NNG	N
<i>Lythrum hyssopifolium</i> L.	Grass poly	P	N
<i>Malacothamnus fasciculatus</i> (Torrey & A. Gray) E. Greene	Chaparral mallow	CSS	N
<i>Malosma laurina</i> (Nutt.) Abrams	Laurel sumac	CSS, DCSS	N
<i>Malva parviflora</i> L.	Cheeseweed, little mallow	DIS, NNG	I
<i>Marah macrocarpus</i> (E. Greene) E. Greene	Wild cucumber	CSS	N
<i>Melilotus indica</i> (L.) All.	Sourclover	DCSS	I
<i>Mesembryanthemum nodiflorum</i> L.	Slender-leaved ice plant	DIS	I
<i>Microseris douglasii</i> ssp. <i>platycarpa</i>	Small-flowered microseris	NG	N
<i>Mimulus aurantiacus</i> Curtis	Bush monkeyflower	CSS/RS	N
<i>Mirabilis californica</i> A. Gray	Wishbone bush	CSS	N
<i>Nassella pulchra</i> (A. Hitchc.) Barkworth	Purple needlegrass	NNG, NG	N
<i>Nicotiana glauca</i> Grah.	Tree tobacco	DIS	I
<i>Opuntia littoralis</i> (Engelm.) Cockerell.	Shore cactus	CSS	N
<i>Osmadenia tenella</i> Nutt.	Osmadenia	NNG	N

ATTACHMENT 1
PLANT SPECIES OBSERVED
(continued)

Scientific Name	Common Name	Habitat	Origin
<i>Oxalis pes-caprae</i> L.	Bermuda buttercup	DCSS	I
<i>Pennisetum setaceum</i> Forsskal	Fountain grass	CSS	I
<i>Picris echinoides</i> L.	Bristly ox-tongue	DIS, DW	I
<i>Plagiobothrys</i> sp.	Popcornflower	CSS, NNG	N
<i>Plantago erecta</i> Morris	Dot-seed plantain	CSS, DCSS, NNG	N
<i>Polypogon monspeliensis</i> (L.) Desf.	Annual beard grass	RS, CSS	I
<i>Quercus agrifolia</i> Nee	Coast live oak, Encina	CSS	N
<i>Raphanus sativus</i> L.	Radish	DIS, NNG	I
<i>Rhus integrifolia</i> (Nutt.) Brewer & Watson	Lemonadeberry	CSS, DCSS	N
<i>Ricinus communis</i> L.	Castor bean	CSS	I
<i>Rumex crispus</i> L.	Curly dock	RS, DW	I
<i>Salix lasiolepis</i> Benth.	Arroyo willow	RS	N
<i>Salsola tragus</i> L.	Russian thistle, tumbleweed	DIS, NNG	I
<i>Salvia mellifera</i> E. Greene	Black sage	CSS/RS	N
<i>Schinus molle</i> L.	Peruvian pepper tree	NNG	I
<i>Selaginella cinerascens</i> Maxon	Ashy spike-moss	CSS	N
<i>Sisyrinchium bellum</i> Wats.	Blue-eyed-grass	CSS, NNG, NG	N
<i>Solanum parishii</i> A.A. Heller	Parish's nightshade	CSS	N
<i>Sonchus asper</i> (L.) Hill ssp. <i>asper</i>	Prickly sow thistle	CSS, NNG	I
<i>Typha</i> sp.	Cattail	RS, DW	N
<i>Xanthium strumarium</i> L.	Cocklebur	DIS	N
<i>Yucca schidigera</i> K.E. Ortgies	Mohave yucca	CSS	N

HABITATS

CSS = Coastal sage scrub
DCSS = Disturbed coastal sage scrub
DIS = Disturbed
NG = Native grasslands
NNG = Non-native grasslands
RS = Riparian scrub
P = Ponded area
DW = Disturbed wetland

ORIGIN

N = Native to locality
I = Introduced species from outside locality

RECON

ATTACHMENT 1
PLANT SPECIES OBSERVED
(continued)

ATTACHMENT 2

ATTACHMENT 2 WILDLIFE SPECIES OBSERVED OR DETECTED ON THE LA COSTA TOWN SQUARE SITE

Common Name	Scientific Name	Occupied Habitat	Abundance/Seasonality (Birds Only)	Evidence of Occurrence
<u>Amphibians</u> (Nomenclature from Crother 2001 and Crother et al. 2003)				
Pacific treefrog	<i>Pseudacris regilla</i>	DIS	N/A	O
<u>Birds</u> (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)				
White-tailed kite	<i>Elanus leucurus</i>			O
Mourning dove	<i>Zenaida macroura marginella</i>	OH	F/Y	O
Anna's hummingbird	<i>Calypte anna</i>	DIS, CSS, NNG	C/Y	O, V
Nuttall's woodpecker	<i>Picoides nuttallii</i>	CSS, NNG	C/Y	O, V
Pacific slope flycatcher	<i>Empidonax difficilis</i>	CSS	U/Y	O, V
Kingbird	<i>Tyrannus sp.</i>	CSS	F/S	O, V
Western scrub-jay	<i>Aphelocoma californica</i>	CSS	U/	O
American crow	<i>Corvus brachyrhynchos hesperis</i>	OH	F/Y	O, V
Common raven	<i>Corvus corax clarionensis</i>	OH	F/Y	O, V
Horned lark	<i>Eremophila alpestris</i>	CSS	F/Y	O, V
Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>	CSS	F/S	O, V
Cliff swallow	<i>Petrochelidon pyrrhonota</i>	CSS	F/S	O, V
Bushtit	<i>Psaltirparus minimus minimus</i>	CSS, DCSS, DIS	C/Y	O, V
Bewick's wren	<i>Thyromanes bewickii</i>	CSS	F/Y	O, V
Coastal California gnatcatcher	<i>Polioptila californica californica</i>	CSS	F/Y	O, V
Yellow-rumped warbler	<i>Dendroica coronata</i>	CSS	F/W	O, V
Common yellowthroat	<i>Geothlypis trichas</i>	CSS	F/Y	O, V
Yellow-breasted chat	<i>Icteria virens auricollis</i>	CSS	F/S	O, V
Spotted towhee	<i>Pipilo maculatus</i>	DIS, CSS	F/Y	O, V
California towhee	<i>Pipilo crissalis</i>	CSS	F/Y	O, V
Southern California rufous-crowned sparrow	<i>Aimophila ruficeps canescens</i>	CSS	F/Y	O, V
Lazuli bunting	<i>Passerina amoena</i>	CSS/NNG	F/C	O, V
Song sparrow	<i>Melospiza melodia</i>	CSS	F/Y	O, V
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	DW, CSS	F/W	O, V
Black-headed grosbeak	<i>Pheucticus melanocephalus maculatus</i>	CSS	F/S	O, V
Western meadowlark	<i>Sturnella neglecta</i>	NNG	U/Y	O, V
House finch	<i>Carpodacus mexicanus frontalis</i>	CSS, DIS, NNG	C/Y	O, V
Lesser goldfinch	<i>Carduelis psaltria</i>	CSS	C/Y	O, V

ATTACHMENT 2
WILDLIFE SPECIES OBSERVED OR DETECTED ON THE LA COSTA TOWN SQUARE SITE
(continued)

Common Name	Scientific Name	Occupied Habitat	Abundance/Seasonality (Birds Only)	Evidence of Occurrence
Mammals (Nomenclature from Jones et al. 1997 and Hall 1981)				
Desert cottontail	<i>Sylvilagus audubonii</i>	CSS	F	O, S
Woodrat	<i>Neotoma</i> spp.	CSS	U	O
Coyote	<i>Canis latrans</i>	CSS	U	O, S

Habitats

CSS = Diegan coastal sage scrub
DCSS = Disturbed coastal sage scrub
DIS = Disturbed land
F = Flying overhead
NNG = Non-native grassland
DW = Disturbed wetland

Relative Abundance (based on Garrett and Dunn 1981)

C = Common to abundant; almost always encountered in proper habitat, usually in moderate to large numbers
F = Fairly common; usually encountered in proper habitat, generally not in large numbers
U = Uncommon; occurs in small numbers or only locally

Seasonality (Birds only)

Y = Year-round resident; probable breeder on-site or in the vicinity.
S = Spring/summer resident; probable breeder on-site or in the vicinity.
T = Transient; uses site regularly but unlikely to breed on-site.
W = Winter visitor; does not breed locally.
M = Migrant; uses the site for brief periods of time, primarily during the spring and fall months.

Evidence of Occurrence

V = Vocalization
O = Observed
S = Scat

ATTACHMENT 3

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE

Species	State/Federal Status	Other Jurisdictional Status	CNPS List/Code	Typical Habitat/Comments
<i>Acanthomintha ilicifolia</i> San Diego thornmint	CE/FT	HCP/OMSP; NE, HMP	1B/2-3-2	Chaparral, coastal sage scrub, valley and foothill grassland/ clay soils. Historically observed on-site (State of California 2006e). Suitable habitat present; low potential to occur since not observed during rare plant surveys.
<i>Adolphia californica</i> California adolphia†	—/—	HCP/OMSP	2/1-2-1	Coastal sage scrub, chaparral. Observed on-site.
<i>Ambrosia pumila</i> San Diego ambrosia	—/FE	HCP/OMSP; NE, HMP	1B/3-2-2	Creekbeds, seasonally dry drainages, floodplains. No suitable habitat. Not known to occur within two miles of the site (State of California 2006e). Not expected to occur.
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar manzanita	—/FE	HCP/OMSP; NE, HMP	1B/3-3-2	Southern maritime chaparral. No suitable habitat. Not observed on-site.
<i>Artemisia palmeri</i> San Diego sagewort	—/—	HCP/OMSP	2/2-2-1	Coastal sage scrub, chaparral, riparian. Not observed. Low potential to occur since not observed during rare plant surveys.
<i>Baccharis vanessae</i> Encinitas coyote bush	CE/FT	HCP/OMSP; NE, HMP	1B/2-3-3	Chaparral. No suitable habitat. Not observed on-site.
<i>Brodiaea filifolia</i> Thread-leaved brodiaea†	CE/FT	HCP/OMSP; NE, HMP	1B/3-3-3	Valley and foothill grassland, vernal pools. Observed on-site.
<i>Brodiaea orcuttii</i> Orcutt's brodiaea†	—/—	HCP/OMSP; NE, HMP	1B/1-3-2	Closed-cone coniferous forest, meadows, cismontane woodland, valley and foothill grassland, vernal pools. Observed on-site in 2006.

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE
(continued)

Species	State/Federal Status	Other Jurisdictional Status	CNPS List/Code	Typical Habitat/Comments
<i>Ceanothus verrucosus</i> Wart-stemmed ceanothus	—/—	HCP/OMSP; HMP	2/1-2-1	Chaparral. Not observed on-site. No suitable habitat present.
<i>Chorizanthe orcuttiana</i> Orcutt's spineflower	CE/FE	NE, HMP	1B/3-3-3	Openings in coastal chamise chaparral. Only a few extant populations occur from Encinitas to Point Loma. Not known to occur within two miles of the site (State of California 2006e). No suitable habitat present; not expected to occur.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> Long-spined spineflower	—/—	—	1B/2-2-2	Open chaparral, coastal sage scrub, montane meadows, valley and foothill grasslands; vernal pools/clay. Not known to occur within two miles of the site (State of California 2006e). Marginal habitat present; low potential to occur since not observed during rare plant surveys.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> Summer holly	—/—	HCP/OMSP; HMP	1B/2-2-2	Chaparral. No suitable habitat present. Not observed on-site.
<i>Dichondra occidentalis</i> Western dichondra†	—/—	HCP/OMSP	4/1-2-1	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland/ generally post-burn. Observed on-site.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	—/—	HCP/OMSP; NE, HMP	1B/2-2-2	Coastal sage scrub. Not detected during previous focused surveys (City of Carlsbad et al. 1995); low potential to occur.

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE
(continued)

Species	State/Federal Status	Other Jurisdictional Status	CNPS List/Code	Typical Habitat/Comments
<i>Dudleya variegata</i> Variegated dudleya	—/—	-	1B/1-2-2	Openings in chaparral and coastal sage scrub; open, rocky grasslands. Moderate habitat present; low potential to occur since not observed during rare plant surveys.
<i>Dudleya viscida</i> Sticky-leaved liveforever	—/—	HCP/OMSP; HMP	1B/3-2-3	Coastal sage scrub; steep, north-facing slopes/ gabbroic soils. Known from just north of site (State of California 2006e). Moderate habitat present; potential to occur.
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	CE/FE	NE; HMP	1B/2-3-2	Vernal pools. Marginal habitat present; not expected to occur.
<i>Euphorbia misera</i> Cliff spurge	—/—	HCP/OMSP; HMP	2/2-2-1	Coastal sage scrub, coastal bluff scrub. Since it was not detected during previous focused surveys (City of Carlsbad et al. 1995) or current RECON surveys, it is not expected to occur on-site.
<i>Ferocactus viridescens</i> Coast barrel cactus	—/—	HCP/OMSP; HMP	2/1-3-1	Chaparral, coastal sage scrub, valley and foothill grassland. Not detected during previous focused surveys (City of Carlsbad et al. 1995). Not observed during RECON rare plant surveys. Suitable habitat, but since not observed, low potential to be present.
<i>Harpagonella palmeri</i> var. <i>palmeri</i> Palmer's grappling hook†	—/—	HCP/OMSP	2/1-2-1	Chaparral, coastal sage scrub, valley and foothill grassland. Observed on-site.

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE
(continued)

Species	State/Federal Status	Other Jurisdictional Status	CNPS List/Code	Typical Habitat/Comments
<i>Hazardia orcuttii</i> Orcutt's hazardia	—/—	HCP/OMSP; NE, HMP	1B/3-3-2	Open chamise chaparral. Only one U.S. population known from Encinitas. Not detected during previous focused surveys and not expected to occur (City of Carlsbad et al. 1995).
<i>Iva hayesiana</i> San Diego marsh elder	—/—	HCP/OMSP	2/2-2-1	Riparian, playas. Not observed on-site; not expected to occur.
<i>Juncus acutus</i> ssp. <i>leopoldii</i> Southwestern spiny rush†	—/—	HCP/OMSP	4/1-2-1	Coastal dunes (mesic) meadows (alkaline), coastal salt marsh. Observed on-site.
<i>Lessingia filaginifolia</i> var. <i>filaginifolia</i> (= <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>) Del Mar Mesa sand aster	—/—	HCP/OMSP; NE, HMP	1B/3-2-3	Chaparral, coastal sage scrub. Not detected during previous focused surveys and not expected to occur (City of Carlsbad et al. 1995).
<i>Microseris douglasii</i> ssp. <i>platycarpa</i> Small-flowered microseris	—/—	—	4/1-2-2	Inland clay soils, grasslands, often near vernal pools; observed on-site.
<i>Muilla clevelandii</i> San Diego goldenstar	—/—	HCP/OMSP; NE, HMP	1B/2-2-2	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools/clay soils. Observed in vicinity (City of Carlsbad 1995, State of California 2005e). Since not observed during rare plant survey; low potential to occur.
<i>Navarretia fossalis</i> Spreading navarretia	—/FT	NE, HMP	1B/2-3-2	Vernal pools. Marginal habitat present; not expected to occur.
<i>Ophioglossum californicum</i> (= <i>Ophioglossum lusitanicum</i> ssp. <i>californicum</i>) California adder's-tongue fern	—/—	HCP/OMSP	4/1-2-2	Clay mesa soils. Observed in vicinity (City of Carlsbad 1995). Typically found around vernal pools; not expected to occur.

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE
(continued)

Species	State/Federal Status	Other Jurisdictional Status	CNPS List/Code	Typical Habitat/Comments
<i>Quercus dumosa</i> Nuttall's scrub oak	—/—	HCP/OMSP; HMP	1B/2-3-2	Coastal chaparral. No suitable habitat present; not observed.
<i>Selaginella cinerascens</i> Ashy spike-moss†	—/—	HCP/OMSP	--	Chaparral, coastal sage scrub. Present on-site.
<i>Tetracoccus dioicus</i> Parry's tetracoccus	—/—	—	1B/3-2-2	Chaparral, coastal sage scrub. Not observed on-site and not expected to occur.

NOTE: See Attachment 4 for explanation of sensitivity codes.

ATTACHMENT 4

ATTACHMENT 4 SENSITIVITY CODES

FEDERAL CANDIDATES AND LISTED PLANTS

FE	=	Federally listed, endangered	FPE	=	Federally proposed endangered
FT	=	Federally listed, threatened	FPT	=	Federally proposed threatened

STATE LISTED PLANTS

CE	=	State listed, endangered
CR	=	State listed, rare
CT	=	State listed, threatened

CITY OF CARLSBAD STATUS

HCP/OMSP	=	Habitat Conservation Plan/Ongoing Multi-Species Plan for Properties in the Southeast Quadrant of the City of Carlsbad
HMP	=	Habitat Management Plan for Natural Communities in the City of Carlsbad
NE	=	Narrow endemic species in HMP

CALIFORNIA NATIVE PLANT SOCIETY

LISTS

1A	=	Species presumed extinct.
1B	=	Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2	=	Species rare, threatened, or endangered in California but which are more common elsewhere. These species are eligible for state listing.
3	=	Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
4	=	A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

R-E-D CODES

R (Rarity)

1	=	Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time.
2	=	Occurrence confined to several populations or to one extended population.
3	=	Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

E (Endangerment)

1	=	Not endangered
2	=	Endangered in a portion of its range
3	=	Endangered throughout its range

D (Distribution)

1	=	More or less widespread outside California
2	=	Rare outside California
3	=	Endemic to California

ATTACHMENT 5

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)

Species	Status	Habitat	Occurrence/Comments*
<u>Invertebrates</u>			
Harbison's dun skipper <i>Euphyes vestris harbisoni</i>	MHCP, HMP	Riparian habitats. Larval host plant <i>Carex spissa</i> .	Host plant not observed; not expected to occur.
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	FE, MHCP	Open, dry areas in foothills, mesas, lake margins. Larval host plant <i>Plantago erecta</i> .	Adult emergence mid-January through April. Site outside of required survey area for 2001. Out of known range; not expected to occur.
Hermes copper <i>Lycaena hermes</i>	HCP/OMSP,*, HMP, NE	Chaparral and coastal sage scrub where host plant <i>Rhamnus crocea</i> occurs.	Adult emergence late May to July. Host plant not observed; not expected to occur.
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	FE, MHCP, *, HMP, NE	Vernal pools.	Not detected during focused wet and dry season surveys. Not expected to occur within the pools on-site.
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	FE, MHCP, *, HMP, NE	Vernal pools.	Not detected during focused wet and dry season surveys. Not expected to occur within the pools on-site.
<u>Amphibians</u> (Nomenclature from Crother 2001 and Crother et al. 2003)			
Western spadefoot <i>Spea hammondi</i>	HCP/OMSP, CSC, MHCP	Vernal pools, floodplains, and alkali flats within areas of open vegetation.	Observed on-site during surveys in June, 2003 (P&D Environmental 2003).
<u>Reptiles</u> (Nomenclature from Crother 2001 and Crother et al. 2003)			
Southwestern pond turtle <i>Clemmys marmorata pallida</i>	HCP/OMSP; CSC, FSS, MHCP	Ponds, small lakes, marshes, slow-moving, sometimes brackish water.	No suitable habitat present; not expected to occur.

RECON

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)
(continued)

Species	Status	Habitat	Occurrence/Comments*
Coronado skink <i>Eumeces skiltonianus interparietalis</i>	HCP/OMSP; CSC	Grasslands, open woodlands and forest, broken chaparral. Rocky habitats near streams.	Marginal habitat present; low potential to occur.
San Diego horned lizard <i>Phrynosoma coronatum blainvillii</i>	HCP/OMSP, CSC, MHCP, *	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.	Known to occur within two miles of the site (State of California 2006e). Suitable habitat present; moderate potential to occur.
Orange-throated whiptail <i>Aspidoscelis hyperythra</i>	HCP/OMSP; CSC, MHCP, HMP	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	Observed on-site (RECON 1990).
Silvery legless lizard <i>Anniella pulchra pulchra</i>	HCP/OMSP, CSC	Herbaceous layers with loose soil in coastal scrub, chaparral, and open riparian habitats. Prefers dunes and sandy washes near moist soil.	Suitable habitat present; moderate potential to occur on-site.
Coast patch-nosed snake <i>Salvadora hexalepis virgulata</i>	HCP/OMSP, CSC	Grasslands, chaparral, sagebrush, desert scrub. Found in sandy and rocky areas.	Marginal habitat present since most of the site is heavy clay soils. Low potential to occur.
Red diamond rattlesnake <i>Crotalus ruber</i>	HCP/OMSP, CSC	Desert scrub and riparian habitats, coastal sage scrub, open chaparral, grassland, and agricultural fields.	Suitable habitat present; high potential to occur on-site.
<u>Birds</u> (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)			
White-tailed kite (nesting) <i>Elanus leucurus</i>	CFP, *	Nest in riparian woodland, oaks, sycamores. Forage in open, grassy areas. Year-round resident.	Observed flying over site. Potential to nest in the few oak trees on-site and forage over the grasslands.

RECON

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)
(continued)

Species	Status	Habitat	Occurrence/Comments*
Northern harrier (nesting) <i>Circus cyaneus</i>	HCP/OMSP, CSC, MHCP	Coastal lowland, marshes, grassland, agricultural fields. Migrant and winter resident, rare summer resident.	Suitable habitat present; low potential to nest on-site.
Sharp-shinned hawk (nesting) <i>Accipiter striatus</i>	CSC	Open deciduous woodlands, forests, edges, parks, residential areas. Migrant and winter visitor.	Winter foraging habitat present; out of nesting range.
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	HCP/OMSP, CSC, MHCP, HMP	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Migrant and winter visitor.	No suitable nesting habitat present; not expected to nest on-site.
Golden eagle (nesting and wintering) <i>Aquila chrysaetos</i>	CSC, CFP, BEPA, MHCP	Require vast foraging areas in grassland, broken chaparral, or sage scrub. Nest in cliffs and boulders. Uncommon resident.	Suitable foraging habitat present; low potential to occur on-site. No suitable nesting habitat present.
Merlin <i>Falco columbarius</i>	CSC	Rare winter visitor. Grasslands, agricultural fields, occasionally mud flats.	Suitable habitat present; low potential to occur on-site in winter.
Prairie falcon (nesting) <i>Falco mexicanus</i>	CSC	Grassland, agricultural fields, desert scrub. Uncommon winter resident. Rare breeding resident. Breeds on cliffs.	Suitable foraging habitat present. No nesting habitat present; not expected to nest on-site.
Western burrowing owl (burrow sites) <i>Speotyto cunicularia hypugaea</i>	CSC, MHCP, HMP	Grassland, agricultural land, coastal dunes. Require rodent burrows. Declining resident.	Marginal habitat present; low potential to occur on-site. Not observed on-site.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)
(continued)

Species	Status	Habitat	Occurrence/Comments*
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	HCP/OMSP, SE, FE, FSS, MHCP, HMP	Nesting restricted to willow thickets. Also occupies other woodlands. Rare spring and fall migrant, rare summer resident. Extremely localized breeding.	No suitable habitat present; not expected to occur.
California horned lark <i>Eremophila alpestris actia</i>	HCP/OMSP; CSC	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub.	Observed on-site.
Coastal cactus wren <i>Campylorhynchus brunneicapillus couesi</i>	CSC, MHCP, *	Maritime succulent scrub, coastal sage scrub with <i>Opuntia</i> thickets. Rare localized resident.	<i>Opuntia</i> not present in sufficient quantity to support species. Not expected to occur.
Coastal California gnatcatcher <i>Polioptila californica californica</i>	HCP/OMSP, FT, CSC, MHCP, HMP	Coastal sage scrub, maritime succulent scrub. Resident.	Observed on-site during previous surveys (City of Carlsbad et al. 1995 and RECON 1990). Observed on-site during 2006 focused surveys.
Loggerhead shrike <i>Lanius ludovicianus</i>	HCP/OMSP, CSC	Open foraging areas near scattered bushes and low trees.	Observed on-site during previous surveys (RECON 2003).
Least Bell's vireo (nesting) <i>Vireo bellii pusillus</i>	HCP/OMSP;; SE, FE, MHCP, HMP	Willow riparian woodlands. Summer resident.	No suitable habitat present; not expected to occur.
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	HCP/OMSP; CSC, MHCP, HMP	Coastal sage scrub, grassland. Resident.	Observed on-site.
Bell's sage sparrow <i>Amphispiza belli belli</i>	HCP/OMSP, CSC, MHCP	Chaparral, coastal sage scrub. Localized resident.	Suitable habitat present; high potential to occur.

RECON

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)
(continued)

Species	Status	Habitat	Occurrence/Comments*
Yellow-breasted chat (nesting) <i>Icteria virens</i>	HCP/OMSP, CSC, MHCP, HMP	Dense riparian woodland. Localized summer resident.	Observed on-site.
<u>Mammals</u> (Nomenclature from Jones et al. 1997 and Hall 1981)			
Pale big-eared bat <i>Corynorhinus townsendii pallescens</i>	CSC	Caves, mines, buildings. Found in a variety of habitats, arid and mesic.	Individual or colonial. Extremely sensitive to disturbance; no roosting habitat present; not expected to occur.
Townsend's western big-eared bat <i>Corynorhinus townsendii townsendii</i>	HCP/OMSP, CSC, MHCP	Caves, mines, buildings. Found in a variety of habitats, arid and mesic.	Individual or colonial. Extremely sensitive to disturbance; no roosting habitat present; not expected to occur.
Western mastiff bat <i>Eumops perotis californicus</i>	HCP/OMSP, CSC, MHCP	Woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows.	No roosting habitat present; not expected to occur on-site.
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	HCP/OMSP, CSC, MHCP	Open areas of scrub, grasslands, agricultural fields.	Suitable habitat present; high potential to occur.
Pacific little pocket mouse <i>Perognathus longimembris pacificus</i>	FE, CSC, MHCP	Open coastal sage scrub, fine, alluvial sands near ocean.	No suitable soils; not expected to occur.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)
(continued)

Species	Status	Habitat	Occurrence/Comments*
Dulzura California pocket mouse <i>Chaetodipus californicus femoralis</i>	HCP/OMSP, CSC	Brushy areas of coastal sage scrub, chamise-redshank & montane chaparral, sagebrush, annual grassland, valley foothill hardwood, valley foothill hardwood-conifer & montane hardwood. Probably most attracted to interface of grassland and brush.	Suitable habitat present; potential to occur.
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	HCP/OMSP, CSC, MHCP	San Diego County west of mountains in sparse, disturbed coastal sage scrub or grasslands with sandy soils.	Known to occur within two miles of the site (State of California 2006e). Suitable habitat present; moderate potential to occur.
Southern grasshopper mouse <i>Onychomys torridus ramona</i>	HCP/OMSP, CSC	Alkali desert scrub and desert scrub preferred. Can also occur in succulent shrub, wash, and riparian areas; coastal sage scrub, mixed chaparral, sagebrush, low sage, and bitterbrush. Low to moderate shrub cover preferred.	Suitable habitat present; potential to occur.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	HCP/OMSP, CSC	Coastal sage scrub and chaparral.	Unidentified woodrat observed on-site. High potential to occur.

ATTACHMENT 5
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING)
(continued)

<u>Status Codes</u>	
<u>Listed/Proposed</u>	
FE	= Listed as endangered by the federal government
FT	= Listed as threatened by the federal government
SE	= Listed as endangered by the state of California
<u>Other</u>	
BEPA	= Bald and Golden Eagle Protection Act
CFP	= California fully protected species
CSC	= California Department of Fish and Game species of special concern
FSS	= Federal (Bureau of Land Management and U.S. Forest Service) sensitive species
HCP/OMSP	= Habitat Conservation Plan/Ongoing Multi-Species Plan for Properties in the southeast quadrant of the City of Carlsbad, California. Prepared by City of Carlsbad, Fieldstone/La Costa Associates, California Department of Fish and Game, and U.S. Fish and Wildlife Service.
MHCP	= Multiple Habitat Conservation Program target species list
HMP	= Habitat Management Plan for Natural Communities in the City of Carlsbad
NE	= Narrow Endemic Species under the Habitat Management Plan for Natural Communities in the City of Carlsbad
*	= Taxa listed with an asterisk fall into one or more of the following categories: <ul style="list-style-type: none"> • Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines • Taxa that are biologically rare, very restricted in distribution, or declining throughout their range • Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California • Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)

RECON

December 19, 2001

Ms. Christine Moen
U.S. Fish and Wildlife Service
Carlsbad Field Office
2730 Loker Avenue West
Carlsbad, CA 92008

Reference: Focused Survey Results of Fairy Shrimp Surveys on La Costa Town Square Property (RECON Number 3465B)

Dear Ms. Moen:

As required by our federal endangered species permit, this letter is to notify the U.S. Fish and Wildlife Service (USFWS) of our survey results of vernal pool fairy shrimp in five ponded areas on the La Costa Town Square property located in the city of Carlsbad (Figures 1 and 2).

Surveys were conducted by personnel authorized under RECON's permit number PRT-797665. Surveys were conducted according to USFWS's Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods (dated April 19, 1996). As outlined in these guidelines, RECON conducted a complete survey, which consists of two consecutive seasons, one full wet season and one dry season. The results of the wet season survey were presented in the letter to you dated July 6, 2001. This letter provides a summary of the wet season survey and the dry season sampling that occurred this year.

Methods

A focused survey during the wet season was conducted by Cynthia Jones and Wendy Loeffler within the five ponded areas located throughout the site on March 13 and 27 and April 10 and 17, 2001. Soil samples for the dry season were collected by Wendy Loeffler on November 7, 2001 according to the sampling techniques outlined in the USFWS survey guidelines. Soil samples were collected and shipped to Jones & Stokes for analysis. Results from their analysis were provided in a letter to RECON on December 5, 2001.

Existing Conditions

The 81.4-acre site supports approximately 35 acres of Diegan coastal sage scrub, 28 acres of disturbed Diegan coastal sage, 1 acre of native grassland, and 0.02 acre of riparian scrub. The remainder of the site is disturbed.

Five ponded areas of low quality were identified during the surveys conducted during the rainy season (Figure 3). Two pools contain a small amount of grass poly (*Lythrum hyssopifolium*), a non-native vernal pool indicator plant. The remaining ponded areas are primarily road ruts and do not contain any vernal pool indicator plant species.

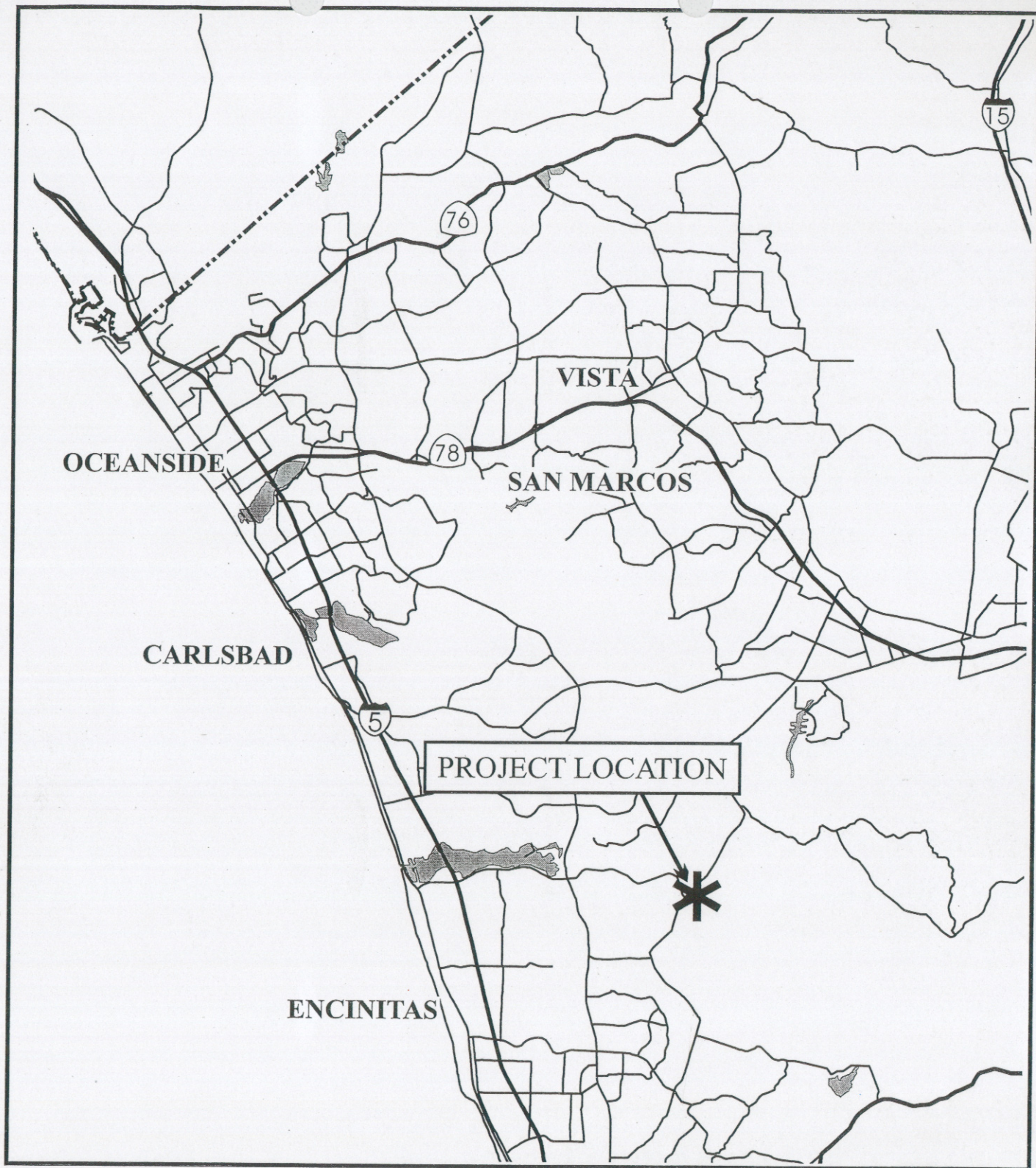
1927 Fifth Avenue, Suite 200
San Diego, CA 92101-2358
619 / 308-9333
fax 308-9334

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DEC 31 2001

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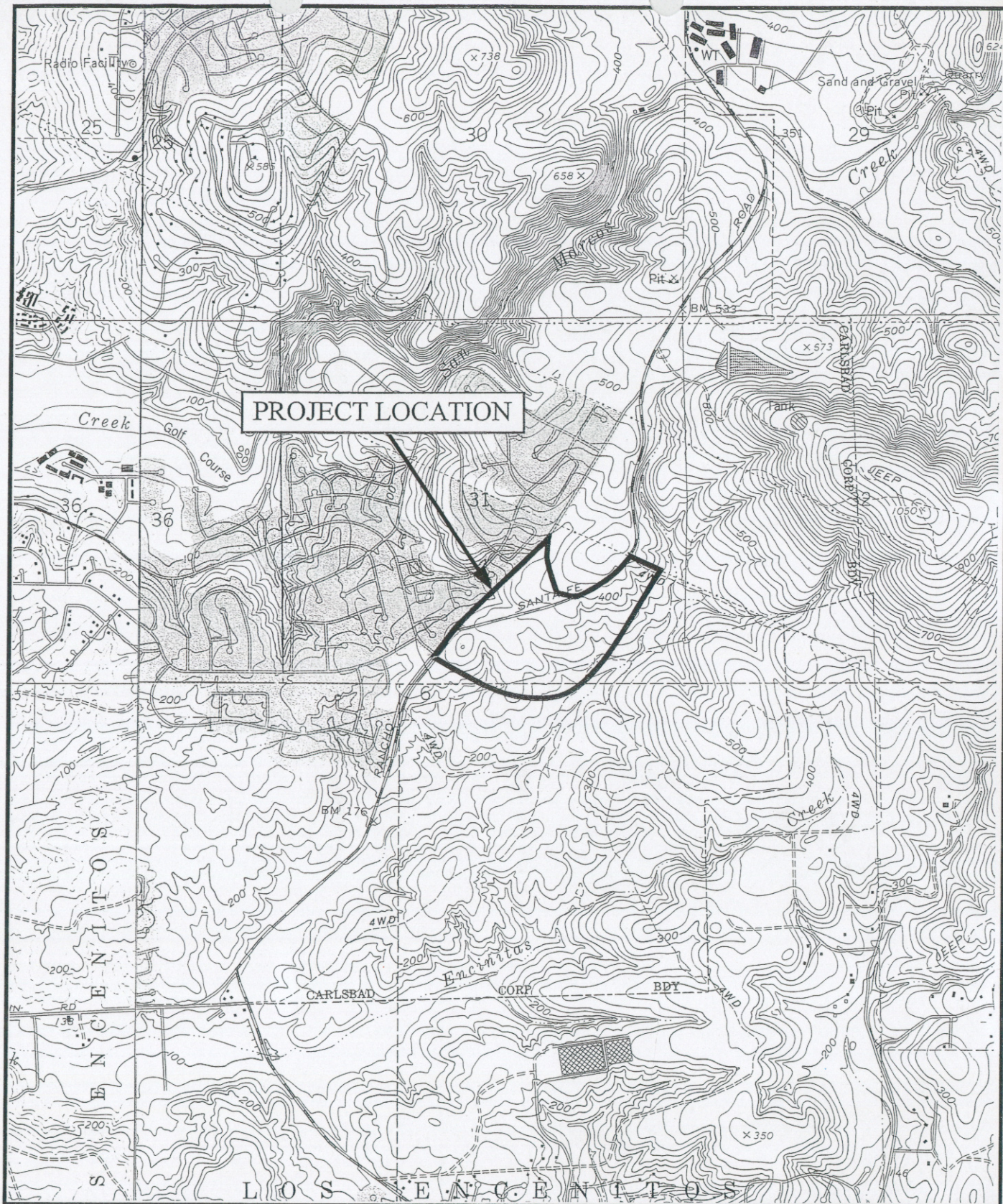
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0 MILES 2.2 4.4

R-3465B.CDR

FIGURE 1
Regional Location of the Project



Map Source: U.S.G.S. 7.5 Minute topographic maps,
Rancho Santa Fe and Encinitas quadrangles



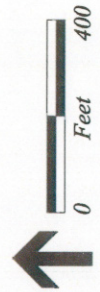
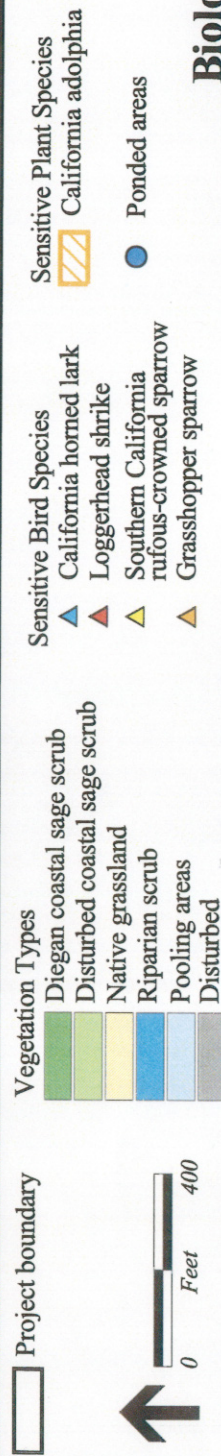
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R-3465B

FIGURE 2
Project Location



FIGURE 3
Existing
Biological Resources



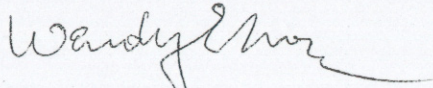
Ms. Christine Moen
Page 2
December 19, 2001

Results

No fairy shrimp were detected within the five ponded areas on-site during either the wet or dry season survey. Jones & Stokes determined that there were no special-status fairy shrimp cysts present within the soil samples analyzed. These results satisfy guidelines established by USFWS to deem this property clear of any special-status shrimp species at this time.

If you have any questions please give me a call.

Sincerely,



Wendy E. Loeffler
Biologist

WEL:amb

cc: Max Stewart, M.A. Stewart Financial, Inc.
Bill Shirley, La Costa Town Center, LLC
Bob Ladwig, Ladwig Design Group, Inc.

References Cited

- U.S. Fish and Wildlife Service (USFWS)
1996 Interim Survey Guidelines to Permittees for Recovery Permits under Section
10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods.

1927 Fifth Avenue
San Diego, CA 92101-2358
P 619.308.9333 F 619.308.9334
www.recon-us.com

RECON

March 2, 2004

Mr. Daniel Marquez
U.S. Fish and Wildlife Service
Carlsbad Field Office
6010 Hidden Valley Road
Carlsbad, CA 92009

RECEIVED

MAR 03 2004

LADWIG DESIGN GR

Reference: Results of Fairy Shrimp Dry Season Survey on La Costa Town Square Property (RECON Number 3465B)

Dear Mr. Marquez:

As required by our federal endangered species permit, this letter is to notify the U.S. Fish and Wildlife Service (USFWS) of our results of dry season surveys for vernal pool fairy shrimp in a depression on the La Costa Town Square property located in the city of Carlsbad (Figures 1 and 2).

Soil sampling was conducted by personnel authorized under RECON's permit number TE-797665. Analysis of samples for fairy shrimp cysts were conducted by personnel authorized under EcoAnalysts, Inc. permit number TE-796284. Collection of soil and analysis for fairy shrimp cysts were conducted according to USFWS Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods (April 19, 1996).

Methods

Soil samples for the dry season were collected by Wendy Loeffler on November 25, 2003 according to the sampling techniques outlined in the USFWS survey guidelines. Soil samples were collected and shipped to Christopher Rogers of EcoAnalysts, Inc. for analysis. Results from their analysis were provided in a letter to RECON on January 26, 2004. In addition, two small pooling areas and three road rut depressions were previously surveyed by RECON in 2001 with negative results (RECON 2001).

Existing Conditions

The 81.4-acre site supports approximately 26.25 acres of Diegan coastal sage scrub, 25.7 acres of disturbed Diegan coastal sage, 0.99 acre of native grassland, and 0.02 acre of riparian scrub, 28.46 acres of disturbed land, and 0.01 acre of ponded areas within the disturbed land (Figure 3).

The site contains three small ponded areas and three road rut depressions totaling approximately 0.01 acre (see Figure 3). Two of the three pooling areas and all three road rut depressions were previously surveyed in 2001 with negative results. The third pooling area was detected by P&D Environmental (2003) in June 2003 and is the focus of this survey report.

Results

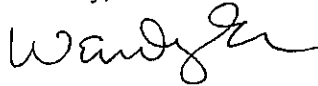
No fairy shrimp were detected within the third pooling area on-site during the dry season survey. EcoAnalysts, Inc. determined that there were no special-status fairy shrimp cysts present within the soil samples analyzed. These results satisfy guidelines established by USFWS to deem this property clear of any special-status shrimp species at this time.

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Mr. Daniel Marquez
Page 2
March 2, 2004

If you have any questions, please call me at 619-308-9333.

Sincerely,



Wendy E. Loeffler
Biologist

WEL:DAB:sh

cc: John Tworoger, Aspen Properties
Bill Shirley, La Costa Town Center, LLC
Bob Ladwig, Ladwig Design Group, Inc.

References Cited

P&D Environmental

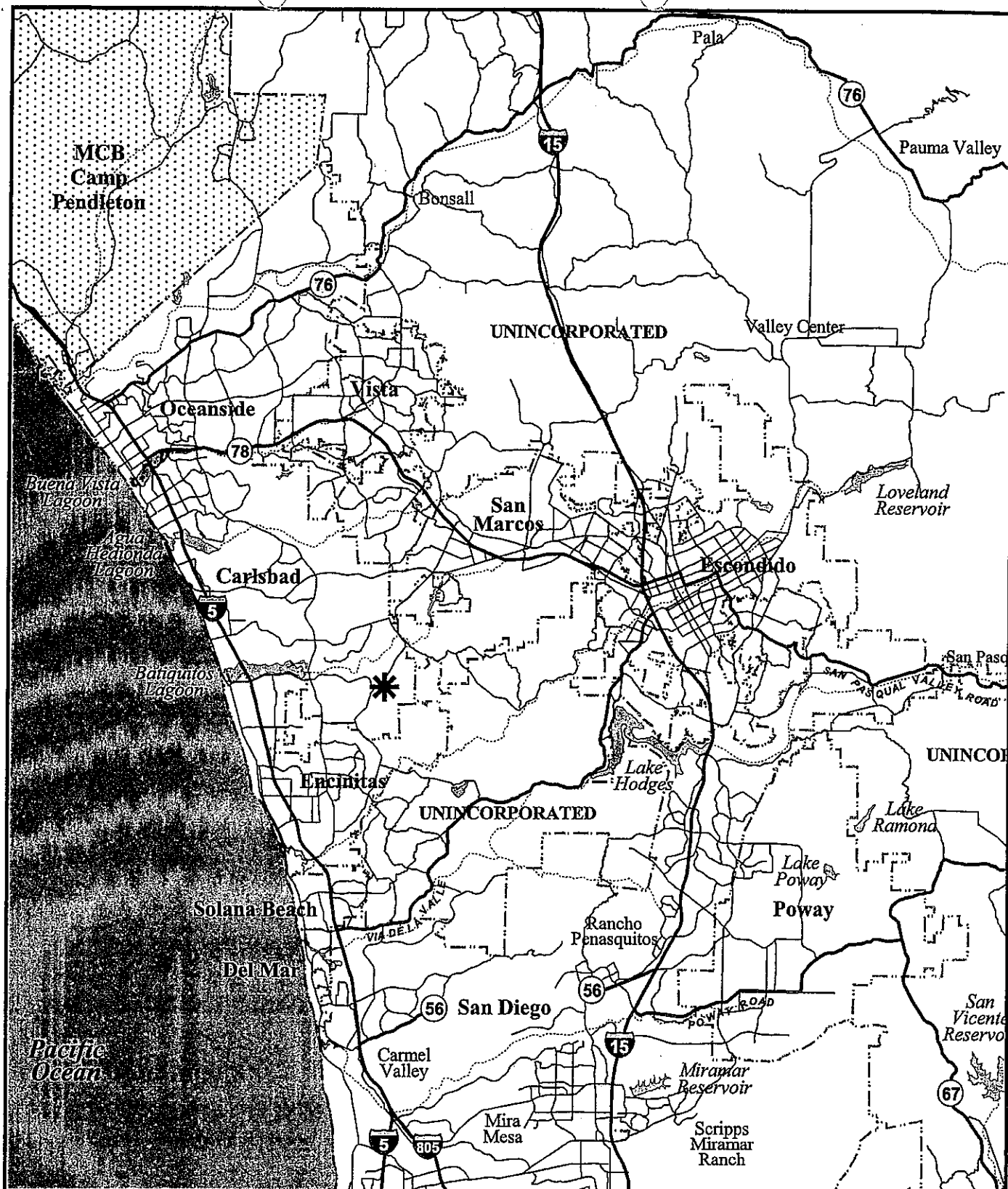
2003 Field Verification of Biological Technical Report Prepare for the La Costa Town Center Property, Carlsbad, California.

RECON

2001 Focused Survey Results of Fairy Shrimp Surveys on La Costa Town Square Property. December 19.

U.S. Fish and Wildlife Service (USFWS)

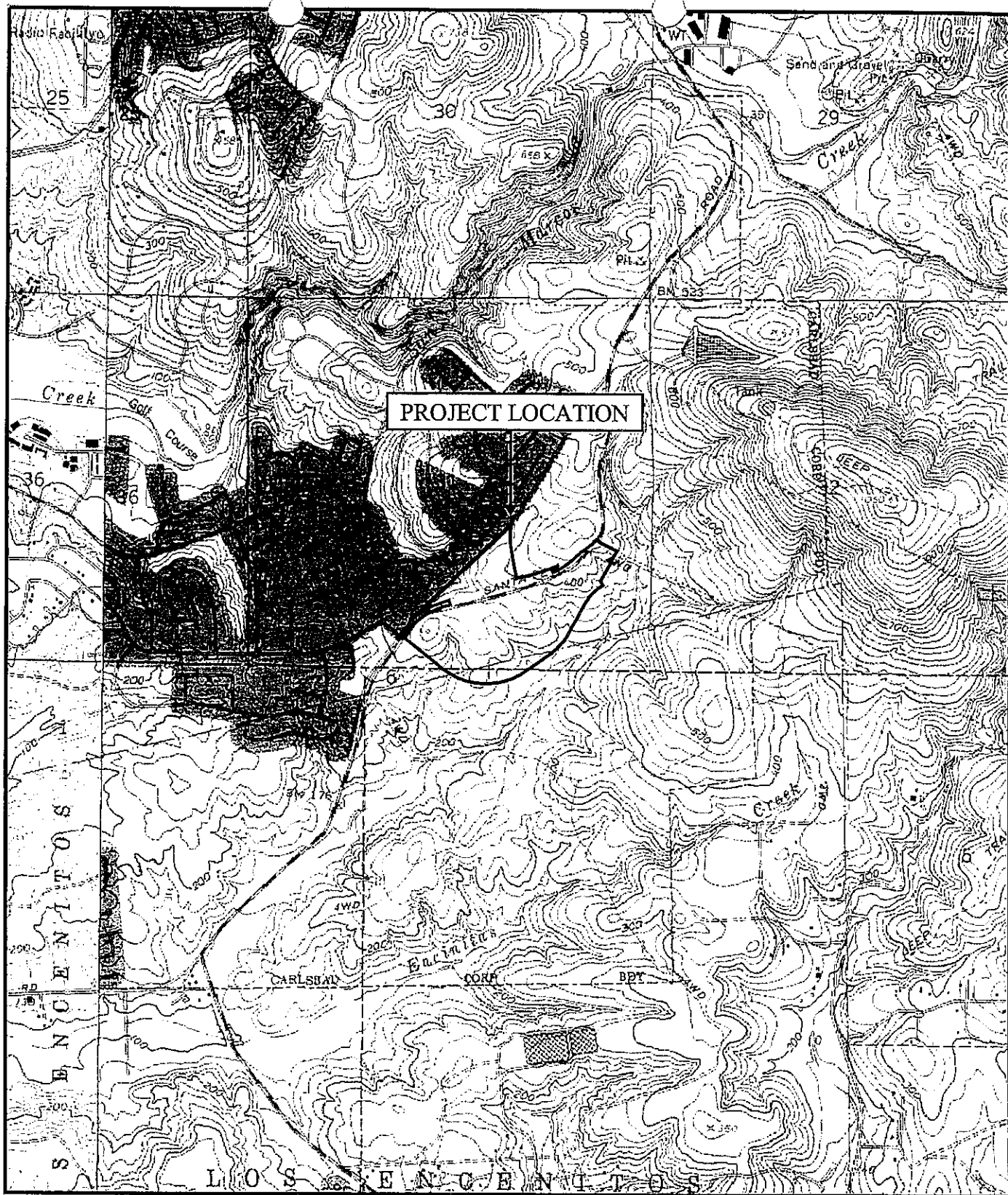
1996 Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods.



* Project location



FIGURE 1
Regional Location



Map Source: USGS 7.5 minute topographic map series,
Rancho Santa Fe quadrangle



FIGURE 2
Project Location
on USGS Map

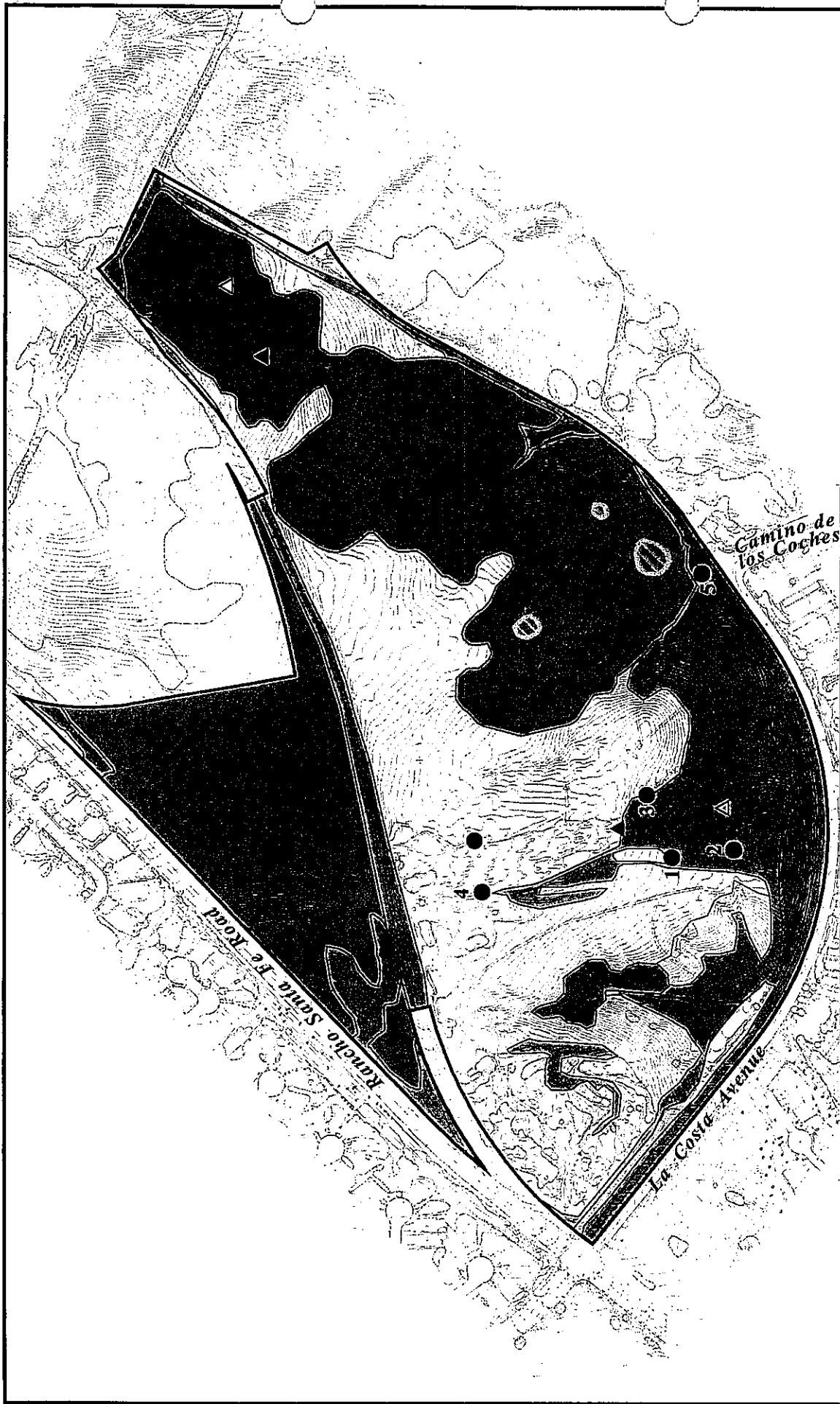


FIGURE 3
Existing
Biological Resources

Vegetation Types		Sensitive Bird Species		Sensitive Plant Species	
	Diegan coastal sage scrub		California horned lark		California adolphia
	Disturbed coastal sage scrub		Loggerhead shrike		Ponded areas
	Native grassland		Southern California rufous-crowned sparrow		
	Riparian scrub		Grasshopper sparrow		
	Pooling areas				
	Disturbed				

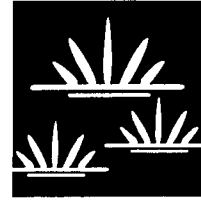
Project boundary



SCANNED

GLENN LUKOS ASSOCIATES

Regulatory Services



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Mr. Max Stewart
La Costa Town Center, LLC
5355 Avenida Encinas
Suite 209
Carlsbad, California 92008

SUBJECT: Significant Nexus Analysis for the La Costa Town Square Property, an
Approximate 81.4-Acre Property, Located in the City of Carlsbad, San Diego
County, California

Dear Mr. Stewart:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), California Department of Fish and Game (CDFG), and California Regional Water Quality Control Board (Regional Board) jurisdiction for the above-referenced property.¹

In October 2007, regulatory specialists from GLA visited the site to determine the limits of jurisdictional waters pursuant to the U.S. Supreme Court consolidated cases titled *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* (Rapanos). Subsequently, GLA was given the project footprint in order to provide an impact assessment in November 2007 and a copy of the report was submitted to the Corps for verification and the CDFG for verification.

In May 2008, GLA regulatory specialists met onsite with Ms. Tamara Spear of the CDFG to verify the GLA delineation. Ms. Spear requested some minor changes and this report incorporates CDFG findings, although, they did not change the original impacts associated with the project.

¹ This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations and written policy and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries. If a final jurisdictional determination is required, GLA can assist in getting written confirmation of jurisdictional boundaries from the agencies.

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The La Costa Town Square Property (Project) is located at 33°04'56" North Latitude and 117°13'50" West Longitude within Section 6, Township 12 South, and Range 3 West in the City of Carlsbad, San Diego County, California [Exhibit 1]. The Project is bounded by Rancho Santa Fe Road to the northwest, La Costa Road to the south, and a residential community to the east, and encompasses approximately 81.4 acres. The Project supports no blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic map Rancho Sante Fe, California [dated 1968 and photorevised in 1983]) [Exhibit 2]. In April and May of 2006, regulatory specialists from Glenn Lukos Associates, Inc. (GLA) examined the Project site to determine the limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act, (2) CDFG jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code, and (3) Regional Board jurisdiction pursuant to Section 401 of the Clean Water Act and Section 13260 of the State of California Water Code.

Enclosed is a 250-scale map [Exhibit 3], which depicts the boundaries of Corps, CDFG, and Regional Board jurisdiction. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 4. Delineation data sheets are attached as Appendix A and the Corps' approved jurisdictional determination forms are attached as Appendix B.

Potential Corps jurisdiction within the Project area totals approximately 0.41 acre, of which 0.06 acre consists of jurisdictional wetlands, and includes approximately 3,037 linear feet of ephemeral streambed. All onsite drainages (Drainages A-D) are considered Corps non-Relatively Permanent Waters (non-RPWs) that potentially support a significant physical, biological, and chemical nexus with Batiquitos Lagoon, the closest Traditional Navigable Water (TNW), which is tidally influenced with the Pacific Ocean. As such, these non-RPWs would potentially be regulated by the Corps pursuant to Section 404 of the Clean Water Act (CWA). In addition, an unvegetated man-made water quality basin located within the project area has the potential to be regulated by the Corps.

According to the proposed Project development footprint, the Project will result in the permanent loss of 0.41 acre of potential Corps non-RPWs, of which 0.06 acre consists of jurisdictional wetlands. This includes 3,037 linear feet of streambed. Exhibit 5 illustrates impacts to Corps jurisdiction.

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CDFG jurisdiction at the site totals approximately 0.44 acre, of which 0.21 acre consists of vegetated riparian habitat. According to the proposed Project development footprint, the Project will result in the permanent loss of 0.44 acre of CDFG jurisdiction, of which 0.21 acre consists of vegetated riparian habitat. This includes 3,981 linear feet of streambed. Exhibit 5 illustrates impacts to CDFG jurisdiction.

I. METHODOLOGY

Prior to beginning the field delineation a 200-scale color aerial photograph, a 200-scale topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential areas of Corps/CDFG jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual² (Wetland Manual). While in the field the jurisdictional area was recorded onto a 200-scale color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The Soil Conservation Service (SCS)³ has mapped the following soil types as occurring in the general vicinity of the project site:

San Miquel-Exchequer Rocky Silt Loams, 9 to 70 Percent Slopes (SnG)

The San Miquel-Exchequer series consist of well-drained, shallow to moderate deep silt loams that have a clay subsoil. In a representative profile for the series, the upper eight inches consist of light brown silt loam. The subsoil is strong brown and yellowish-brown clay underlain at a depth of about 23 inches by hard metavolcanic rock. The profile for SnG soils is similar to that described above for the series. Runoff is medium to rapid, and the erosion hazard is moderate to very high. San Miquel-Exchequer soils are typically used for wildlife habitat and watershed. SnG soils are found on a small northern portion of the Project site.

Huerhuero loam, 9-15 Percent Slopes, Eroded (HrD2)

² Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

³ SCS is now known as the National Resource Conservation Service or NRCS.

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The Huerhuero series consist of moderately well-drained loams that have a clay subsoil. In a representative profile for the series, the surface layer is brown and pale brown, strongly acidic and medium loam about 12 inches thick. The subsoil is brown, moderately alkaline clay loam and sandy loam. The profile for HrD2 soil is similar to that described above for the series. Runoff is medium, and the erosion hazard moderate. Huerhuero soils are typically used for tomatoes, flowers, range and housing developments. HrD2 is the dominant soils found throughout the site and primarily on the southwestern portion of the Project site.

Altamont Clay, 15-30 Percent Slopes (AtE)

The Altamont series consist of well-drained clays that formed in material weathered from calcareous shale. In a representative profile for the series, the surface layer is dark brown (10YR 4/3), neutral to moderately alkaline clay at about 28 inches. The subsoil is dark brown and light olive-brown (2.5Y 5/4). Permeability of this soil is slow. Altamont soils are found near Diablo, Linne, and Las Flores soils. The profile for AtE soils is similar to that described above for the series. Runoff is very slow on the soil. Altamont soils are typically used for range and irrigated tomatoes. AtE soils are found on a small southern portion of the Project site.

None of these soil units are identified as hydric in the SCS's publication, Hydric Soils of the United States⁴. None of these soil units were identified as hydric in the SCS's Hydric Soils List for San Diego County.

II. JURISDICTION

A. Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

⁴ United States Department of Agriculture, Soil Conservation Service. 1991. Hydric Soils of the United States, 3rd Edition, Miscellaneous Publication Number 1491. (In cooperation with the National Technical Committee for Hydric Soils.)

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- (1) *All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
- (2) *All interstate waters including interstate wetlands;*
- (3) *All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
 - (i) *Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
 - (ii) *From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or*
 - (iii) *Which are used or could be used for industrial purpose by industries in interstate commerce...*
- (4) *All impoundments of waters otherwise defined as waters of the United States under the definition;*
- (5) *Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;*
- (6) *The territorial seas;*
- (7) *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.*

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

- (8) *Waters of the United States do not include prior converted cropland.⁵*
Notwithstanding the determination of an area's status as prior converted cropland by

⁵ The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season...." [Emphasis added.]

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any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:
...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

1. ***Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.***

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, EPA asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc.*) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The SWANCC opinion goes on to state:

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In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

2. Rapanos v. United States and Carabell v. United States

On June 5, 2007, the U.S. Environmental Protection Agency (EPA) and Corps issued joint guidance that addresses the scope of jurisdiction pursuant to the Clean Water Act in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart below was provided in the joint EPA/Corps guidance.

For project sites that include waters other than Traditional Navigable Waters (TNWs) and/or their adjacent wetlands or Relatively Permanent Waters (RPWs) tributary to TNWs and/or their adjacent wetlands as set forth in the chart below, the Corps must apply the significant nexus standard, that includes the data set forth in the *Approved Jurisdictional Determination Form* included as Appendix B.

For "isolated" waters or wetlands, the joint guidance also requires an evaluation by the Corps and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the Corps. The information pertaining to isolated waters is also included on the *Approved Jurisdictional Determination Form* included as Appendix B.

The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least

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seasonally (e.g., typically three months)

- Wetlands that directly abut such tributaries

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors

3. Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries followed by the Arid West Supplement in 2006. The methodology set forth in the 1987 Wetland Delineation Manual and Arid West Supplement generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual provides great detail

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in methodology and allows for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands⁶);
- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year.

4. Corps Jurisdiction in Arid, Dry Lands

In June 2001, the Corps issued a final summary report titled *Final Summary Report: Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest* to provide delineators throughout the western United States with guidance to assist in determining the extent of Corps jurisdictional waters utilizing both the physical characteristics of dryland fluvial systems and relevant sections from the Code of Federal Regulations (33 CFR Part 328). In dryland fluvial systems typical of desert areas, the most common physical characteristics indicating the OHWM for a channel include, but are not limited to:

- A clear natural scour line impressed upon the bank;
- Recent bank erosion;
- Destruction of native terrestrial vegetation; and
- The presence of litter and debris.

⁶ Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands. U.S. Fish and Wildlife Service Biological Report 88(26.10).

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For many desert wash systems, the presence of continuous well-developed upland vegetation in the stream channel is a good indicator that it only conveys surface flows during extremely large storm events and, as a result, does not usually constitute a Corps jurisdictional water.

The Corps usually takes the position that the presence of native riparian vegetation in a dry wash is usually a good indicator that the stream channel usually exhibits surface flow during both small and moderate storm events, however our position is that if there is no physical sign of surficial stream flow, the flow may be limited to underground flow, which is not regulated by the Corps.

Although the Corps has issued this guidance for dry, arid areas, it is also being issued to assist delineators with establishing Corps jurisdictional boundaries of alluvial fan topography. Alluvial fans are typical landforms found within dry, arid areas and are typically transfer systems for materials eroded from mountain masses and into lowland areas. Alluvial fans vary in size depending upon age and sediment supply and the location of a fan is influenced by several factors including lack of vegetation resulting in unfixed drainage channels, the topography in transitional areas between mountain slopes, and the valley floor where the percentage of upland area is greater than the percentage of lowland area.⁷

Alluvial fans originate where confined streams issue from mountain fronts onto the basin floor. Development can be linked to a combination of stream channel widening and channel migration. As a result, braided channels characterize alluvial fans. These channels take three forms:

- channels,
- elevated or old fan surfaces, and
- recent depositional areas down slope of the channels.⁸

Based upon these characteristics, the Corps regulates some of these fan features pursuant to Section 404 of the Clean Water Act. In addition, alluvial fans support several historic channels, which only convey flow during extremely high storm events. Based upon this information, the Corps exercises very limited jurisdictional authority over alluvial fans. Corps-regulated features

⁷ Information taken from Graf, W.L.; 1988; Fluvial Processes in Dryland Rivers. Springer-Verlag: New York, NY; pp.1-387.

⁸ Information taken from Graf, W.L.; 1988a.; Floodplains Along Arid-Region Rivers. In Flood Geomorphology. Eds. Baker, V., R. Kochel, P. Patton; John Wiley and Sons; New York, NY; pp. 231-241.

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of an alluvial fan include its feeder channel, its main distributary channels, and its direct tributary or tributaries. All other features within an alluvial fan system are not considered jurisdictional.

B. Regional Water Quality Control Board

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.⁹ The memorandum states:

California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required...

The SWANCC decision does not affect the Porter Cologne authorities to regulate discharges to isolated, non-navigable waters of the states....

Water Code section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." (Water Code § 13260(a)(1) (emphasis added).) The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(e).) The U.S. Supreme Court's ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters of the state, regardless of whether the COE has concurrent jurisdiction under

⁹ Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

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section 404. The fact that often Regional Boards opted to regulate discharges to, e.g., vernal pools, through the 401 program in lieu of or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification....

In this memorandum the SWRCB's Chief Counsel has made the clear assumption that fill material to be discharged into isolated waters of the United States is to be considered equivalent to "waste" and therefore subject to the authority of the Porter Cologne Water Quality Act. However, while providing a recounting of the Act's definition of waters of the United States, this memorandum fails to also reference the Act's own definition of waste:

"Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

The lack of inclusion of a reference to "fill material," "dirt," "earth" or other similar terms in the Act's definition of "waste," or elsewhere in the Act, suggests that no such association was intended. Thus, the Chief Counsel's memorandum signals that the SWRCB is attempting to retain jurisdiction over discharge of fill material into isolated waters of the United States by administratively expanding the definition of "waste" to include "fill material" without actually seeking amendment of the Act's definition of waste (an amendment would require action by the state legislature). Consequently, discharge of fill material into waters of the State not subject to the jurisdiction of the Corps pursuant to Section 404 of the Clean Water Act may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements (WDRs) or through waiver of WDRs, despite the lack of a clear regulatory imperative.

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C. California Department of Fish and Game

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFG defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFG's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFG] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFG jurisdictional limits closely mirror those of the Corps. Exceptions are CDFG's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

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III. RESULTS

A. Corps Jurisdiction

The Project area supports four drainage features, described below as Drainages A through D. Combined, the drainages total 0.26 acre, of which 0.06 acre exhibit wetland characteristics. Drainages A through D are all ephemeral tributaries and are considered non-RPWs which potentially exhibit a significant physical, biological, and chemical nexus with a TNW and would potentially be subject to Corps jurisdiction pursuant to Section 404 of the CWA if a positive significant nexus determination is made by the Corps. According to the Corps' Los Angeles District Office, Batiquitos Lagoon, which is tidally influenced by the Pacific Ocean, is the closest TNW to the Project Site¹⁰. Batiquitos Lagoon is approximately 2.45 aerial miles from the Project Site. Drainages A through D flow in a southerly direction and eventually discharge, directly or indirectly, into Encinitas Creek, which is tributary to Batiquitos Lagoon, which receives tidal influences from the Pacific Ocean. The Project is approximately 0.65 river miles from Encinitas Creek, a Relatively Permanent Water (RPW); and generally, flows from the Project Site, traveling through the following, in sequential order: La Costa Avenue storm drain, unnamed non-RPW drainage, Encinitas Creek, and Batiquitos Lagoon, which is part of the Pacific Ocean. Table One below summarizes potential Corps, non-RPW waters.

1. **Drainage A:**

Drainage A is an ephemeral, non-RPW water which potentially supports a total of approximately 0.01 acre of Corps jurisdiction, none of which exhibits wetland characteristics. Drainage A is located in the western portion of the Project area and flows south for approximately 167 linear feet before flowing into an existing storm drain within La Costa Avenue. A one-foot wide OHWM and the presence of litter and debris, shelving, lines impressed upon the banks, and changes in soil characteristics were observed.

Vegetation associated with the adjacent upland areas is dominated by deerweed (*Lotus scoparius*), California sagebrush (*Artemesia californica*), California buckwheat

¹⁰ U.S. Army Corps of Engineers, Los Angeles District. (2007). Navigable waterways in the Los Angeles District: California. Retrieved on october 24, 2007 from <http://www.spl.usace.army.mil>.

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(*Eriogonum fasciculatum*), mustard (*Brassica* sp.), brome grasses (*Bromus* sp.), oat grass (*Danthonia californica*), black sage (*Salvia mallifera*), white sage (*Salvia apiana*), sour clover (*Melilotus indica*), bristly ox tongue (*Picis echioides*), and summer mustard (*Hirshfeldia incana*). No soil pits were taken within Drainage A since no hydrophytic vegetation was present.

Drainage A potentially exhibits a significant physical, biological, or chemical nexus with the closest TNW, Batiquitos Lagoon. Drainage A is approximately 2.30 aerial miles and 3.89 river miles from Batiquitos Lagoon. After flows from Drainage A enter the La Costa storm drain system, they flow into an unnamed non-RPW drainage, and eventually into Encinitas Creek. There are no wetlands associated with Drainage A.

Flows within Drainage A are limited to storm flows within a 5.75-acre watershed. The City receives approximately 10.21 inches of rainfall per year, with an average monthly maximum of 2.12 inches in February and an average monthly minimum of 0.03 inches in July¹¹. The volume, duration, and frequency of flows within the channel suggest that Drainage A may potentially exhibit a significant nexus with a TNW.

2. Drainage B:

Drainage B is an ephemeral, non-RPW water which potentially supports a total of approximately 0.06 acre of Corps jurisdiction, of which 0.02 acre exhibits wetland characteristics. Drainage B is located in the center portion of the Project area and flows south for approximately 877 linear feet before flowing into an existing storm drain within La Costa Avenue. The OHWM is approximately two-feet wide and the presence of litter and debris, shelving, lines impressed upon the banks, and changes in soil characteristics were observed. Drainage B supports two wetlands dominated with Mexican rush (*Juncus mexicanus*) and rabbit's foot grass (*Polypogon monspeliensis*.) The northern wetland is approximately 283 square feet and the southern wetland is approximately 591 square feet, both lying within and abutting the low-flow channel. Soil Pits #1 and #2 were excavated within Drainage B. The wetland data sheet for Soil Pits #1 and #2 are enclosed as Appendix A.

¹¹ National Weather Service. (2007). San Diego, California. Retrieved on October 24, 2007 from <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805>.

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Drainage B is moderately incised and consists of a sandy bottom. The adjacent upland areas are dominated by deerweed (*Lotus scoparius*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), mustard (*Brassica* sp.), brome grasses (*Bromus* sp.), oat grass (*Danthonia californica*), black sage (*Salvia mallifera*), white sage (*Salvia apiana*), rabbit's foot grass (*Polygona monspeliensis*), sour clover (*Melilotus indica*), spike rush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), bristly ox tongue (*Picis echioides*), and summer mustard (*Hirshfeldia incana*).

Drainage B potentially exhibits a significant physical, biological, or chemical nexus with the closest TNW, Batiquitos Lagoon. Drainage B is approximately 2.51 aerial miles and 4.14 river miles from Batiquitos Lagoon. After flows from Drainage B enter the La Costa storm drain system, they flow into an unnamed non-RPW drainage, and eventually into Encinitas Creek. Drainage B supports two wetlands dominated by non-native grass and native rush. The northern wetland is approximately 283 square feet and the southern wetland is approximately 591 square feet, both lying within and abutting the low-flow channel. No riparian canopy is located within Drainage B.

Flows within Drainage B are limited to storm flows within a 0.76-acre watershed. The City receives approximately 10.21 inches of rainfall per year, with an average monthly maximum of 2.12 inches in February and an average monthly minimum of 0.03 inches in July¹². The volume, duration, and frequency of flows within the channel suggest that Drainage B potentially exhibits a significant nexus with a TNW.

3. Drainage Complex C:

Drainage C is an ephemeral, non-RPW water which potentially supports a total of approximately 0.18 acre of Corps jurisdiction, of which 0.04 acre exhibits wetland characteristics. Drainage Complex C is located in the eastern-center portion of the Project area and consists of two drainages that confluence at their southern end. Drainage C-1 flows south for approximately 756 linear feet before confluencing with Drainage C-2. Drainage C-2 flows south for 546 linear feet before accepting flows from Drainage C-1, then for 439 linear feet before discharging into a culvert under La Costa Avenue.

¹² National Weather Service. (2007). San Diego, California. Retrieved on October 24, 2007 from <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805>.

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Drainage Complex C supports an OHWM averaging approximately three-feet wide and contains the presence of litter and debris, shelving, and changes in soil. Drainage Complex C supports a wetland dominated with Mexican rush (*Juncus mexicanus*) and rabbit's foot grass (*Polypogon monspeliensis*) that is approximately 1,750 square feet within, and abutting, the low-flow channel. Soil Pits #3 and #4 were excavated within Drainage C. The wetland data sheet for Soil Pits #3 and #4 are enclosed as Appendix A.

Drainage Complex C is moderately incised and is predominantly unvegetated and consists of a sandy bottom. The adjacent upland areas are dominated by deerweed (*Lotus scoparius*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), mustard (*Brassica sp.*), brome grasses (*Bromus sp.*), oat grass (*Danthonia californica*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), rabbit's foot grass (*Polypogon monspeliensis*), sour clover (*Melilotus indica*), spike rush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), bristly ox tongue (*Picris echinoides*), and summer mustard (*Hirschfeldia incana*).

Drainage Complex C potentially exhibits a significant physical, biological, or chemical nexus with the closest TNW, Batiquitos Lagoon. Drainage Complex C is approximately 2.59 aerial miles and 4.22 river miles from Batiquitos Lagoon. After flows from Drainage Complex C enter the La Costa storm drain system, they flow into an unnamed non-RPW drainage, and eventually into Encinitas Creek. Drainage Complex C supports a wetland dominated with non-native grass and native rush that is approximately 1,750 square feet within, and abutting, the low-flow channel. Vegetated riparian habitat consists of approximately 25 percent cover.

Flows within Drainage C are limited to storm flows within a 6.18-acre watershed. The City receives approximately 10.21 inches of rainfall per year, with an average monthly maximum of 2.12 inches in February and an average monthly minimum of 0.03 inches in July¹³. The volume, duration, and frequency of flows within the channel suggest that Drainage Complex C potentially exhibits a significant nexus with a TNW.

¹³ National Weather Service. (2007). Fullerton, California. Retrieved on September 27, 2007 from http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805.

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4. Drainage D:

Drainage D is an ephemeral, non-RPW water which potentially supports a total of approximately 0.01 acre of Corps jurisdiction, none of which exhibits wetland characteristics. Drainage D is located in the eastern portion of the Project area and flows south for approximately 251 linear feet before discharging into an existing concrete ditch off-site. Drainage D supports an OHWM averaging approximately one-foot wide and contains the presence of litter and debris, shelving, and changes in soil.

Drainage D is moderately incised, predominately unvegetated, and consists of a sandy bottom. The adjacent upland areas are dominated by deerweed (*Lotus scoparius*), California sagebrush scrub (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), mustard (*Brassica* sp.), brome grasses (*Bromus* sp.), oat grass (*Danthonia californica*), black sage (*Salvia mallifera*), white sage (*Salvia apiana*), rabbit's foot grass (*Polyogon monspeliensis*), sour clover (*Melilotus indica*), spike rush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), bristly ox tongue (*Picis echioides*), and summer mustard (*Hirshfeldia incana*). No soil pits were taken within Drainage D since no hydrophytic vegetation was present and the soils exhibited sandy, non-wetland characteristics.

Drainage D potentially exhibits a significant physical, biological, or chemical nexus with the closest TNW, Batiquitos Lagoon. Drainage D is approximately 2.66 aerial miles and 4.55 river miles from Batiquitos Lagoon. After flows from Drainage D enter the La Costa storm drain system, they flow into an unnamed non-RPW drainage, and eventually into Encinitas Creek. There are no wetlands associated with Drainage D.

Flows within Drainage D are limited to storm flows within a 0.68-acre watershed. The City receives approximately 10.21 inches of rainfall per year, with an average monthly maximum of 2.12 inches in February and an average monthly minimum of 0.03 inches in July¹⁴. The volume, duration, and frequency of flows within the channel suggest that Drainage D potentially exhibits a significant nexus with a TNW.

¹⁴ National Weather Service. (2007). San Diego, California. Retrieved on October 24, 2007 from http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805.

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Man-Made Water Quality Basin

A man-made water quality basin is located adjacent to Rancho Santa Fe Road within the northern portion of the Project area. The basin supports approximately 0.15 acre of unvegetated waters. This man-made water quality basin is subject to Corps jurisdiction pursuant to Section 404 of the Clean Water Act.

B. Significant Nexus Determination

Drainages A and D

1. Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?

Drainage A and D collect an influx of pollutants including urban runoff, sediment, and trash and would most likely reduce by small amounts the potential for pollutants to reach the Batiquitas Lagoon, as they are not functioning as water treatment features. These features are tributary to Encinitas Creek, which is tributary to Batiquitas Lagoon, which receives tidal influences from the Pacific Ocean.

2. Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?

Drainages A and D do not provide habitat for aquatic species and support no riparian resources.

3. Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?

Drainages A and D do not support wetlands or a riparian canopy; therefore, Drainages A and D have very low capabilities to transfer nutrients and organic compounds to downstream foodwebs.

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4. Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Although Drainages A and D are low-functioning with regards to native vegetation, riparian vegetation, recruitment of vegetation, vertical structure or canopy associated with vegetation, connection to the adjacent floodplain, topographic complexity, substrate composition, and surrounding land uses, they potentially contribute to the physical, chemical, or biological integrity of the TNW.

5. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs:

Drainages A and D are non-RPWs that flow during storm events and potentially contribute to the physical, biological, or chemical integrity to the Batiquitas Lagoon (the nearest TNW) and therefore, a potential significant nexus exists.

Drainages B and Complex C

1. Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?

Drainage B and Complex C collect an influx of pollutants including urban runoff, sediment, and trash and would most likely reduce by small amounts the potential for pollutants to reach the Batiquitas Lagoon, as they are not functioning as a water treatment features. These features are tributary to Encinitas Creek, which is tributary to Batiquitas Lagoon, which receives tidal influences from the Pacific Ocean.

2. Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?

Although Drainage B and Complex C and their adjacent wetlands do not provide habitat or life support functions for fish or other aquatic species, they do support limited riparian

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resources. Therefore, Drainage B and Drainage Complex C potentially have effects upon the lifecycle support functions for fish or other aquatic species associated with the TNW.

3. Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?

Drainage B and Complex C support a riparian canopy of approximately 10 to 25 percent and three small wetlands (ranging from approximately 283 to 1,750 square feet), and therefore, have the capability to transfer nutrients and organic compounds to downstream foodwebs.

4. Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Drainage B and Complex C are relatively low functioning with regards to vertical structure, zonation, and canopy due to the 10 to 25 percent of canopy cover. Existing residential and commercial development provides low quality buffers, little topographic complexity, and uniform substrate composition.

5. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs:

Drainage B and Complex C are non-RPWs that flow during storm events or from nuisance flow and potentially contribute to the physical, biological, or chemical integrity of the Batiquitos Lagoon, (the nearest TNW) and therefore, a potential significant nexus exists.

Man-Made Water Quality Basin

1. Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?

The unvegetated basin discharges during storm events into a storm drain system that flows indirectly into Batiquitos Lagoon (the TNW).

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2. Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?

The basin does not provide habitat for aquatic species and is unvegetated, thus, there is no potential effect on the habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW.

3. Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?

The unvegetated basin does not support wetlands or riparian vegetation and therefore, will not contribute nutrients and organic carbon to downstream foodwebs.

4. Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Although the unvegetated basin is non-functioning with regards to native vegetation, riparian vegetation, recruitment of vegetation, vertical structure or canopy associated with vegetation, connection to the adjacent floodplain, topographic complexity, substrate composition, and surrounding land uses, it potentially contributes to the physical, chemical, or biological integrity of the TNW.

5. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs:

The unvegetated basin potentially contributes to the physical, biological, or chemical integrity of the Batiquitos Lagoon, (the nearest TNW) and therefore, a potential significant nexus exists.

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Table 1: Potential Corps Non-RPWs

Drainage Name	Potential Corps Non-RPWs (Acres)	Potential Corps Waters Exhibiting Wetland Characteristics (Acres)	Total Potential Corps Non-RPWs (Acres)	Total Linear Feet Of Potential Corps Non-RPWs (Feet)
Drainage A	0.01	0.00	0.01	167
Drainage B	0.04	0.02	0.06	877
Drainage C	0.14	0.04	0.18	1,742
Drainage D	0.01	0.00	0.01	251
Water Quality Basin	0.15	0.00	0.15	N/A
TOTAL	0.35	0.06	0.41	3,037

B. Regional Water Quality Control Board Jurisdiction

Drainages A through D and the man-made water quality basin have the potential to be Corps jurisdictional waters subject to regulation pursuant to Section 401 and 404 of the Clean Water Act and do not need to be addressed separately pursuant to Section 13260 of the State of California Water Code, the Porter-Cologne Act.

C. CDFG Jurisdiction

CDFG jurisdiction associated with the Project area totals approximately 0.44 acres, of which 0.21 acre consists of vegetated riparian habitat. The drainages flow in a general north to south direction before discharging off site into an unnamed creek, which flows into Encinitas Creek. Drainages A through D are ephemeral tributaries of Encinitas Creek, which is tributary to the Batiquitos Lagoon, which receives tidal influences from the Pacific Ocean. Each drainage exhibits a high water mark (HWM) as well as several characteristics of streamflow including

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bed, bank, channel, the destruction of terrestrial vegetation, terracing, change in soil characteristics, debris wracks, and/or water marks. The boundaries of CDFG jurisdiction are depicted on Exhibit 3.

1. Drainage A:

Drainage A is an ephemeral feature that originates within the western portion of the Project area and exhibits a one-foot wide HWM. Drainage A and its tributaries support approximately 0.03 acre of CDFG jurisdiction, none of which consists of vegetated riparian habitat, and generally flow from north to south before flowing into an existing storm drain within La Costa Avenue. Two one-foot wide tributaries flow from east to west before connecting to Drainage A. Collectively, Drainage A and its tributaries consist of 1,111 linear feet. Drainage A and its tributaries exhibit the presence of litter and debris, shelving, lines impressed upon the banks, and changes in soil characteristics.

Vegetation associated with the adjacent upland areas is dominated by deerweed (*Lotus scoparius*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), mustard (*Brassica* sp.), brome grasses (*Bromus* sp.), oat grass (*Danthonia californica*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), sour clover (*Melilotus indica*), bristly ox tongue (*Picis echinoides*), and summer mustard (*Hirschfeldia incana*).

2. Drainage B:

Drainage B is an ephemeral feature that originates within the center portion of the Project area. The drainage supports approximately 0.06 acre of CDFG jurisdiction, of which 0.02 acre consists of vegetated riparian habitat, and flows from north to south for approximately 877 linear feet before flowing into an existing storm drain within La Costa Avenue. Drainage B supports an HWM averaging approximately two-feet wide and contains the presence of litter and debris, shelving, and changes in soil characteristics.

Drainage B is moderately incised, predominately unvegetated, and consists of a sandy bottom. The adjacent upland areas are dominated by deerweed (*Lotus scoparius*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), mustard (*Brassica* sp.), brome grasses (*Bromus* sp.), oat grass (*Danthonia*

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californica), black sage (*Salvia mallifera*), white sage (*Salvia apiana*), rabbit's foot grass (*Polygon monspeliensis*), sour clover (*Melilotus indica*), spike rush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), bristly ox tongue (*Picis echioides*), and summer mustard (*Hirshfeldia incana*).

3. Drainage Complex C:

Drainage Complex C supports a total of approximately 0.34 acre of CDFG jurisdiction, of which 0.19 acre consists of vegetated riparian habitat. Drainage Complex C is an ephemeral stream that originates as two drainages that converge within the east portion of the Project area. Drainage C-1 supports 0.21 acre of CDFG jurisdiction, of which 0.14 acre consists of vegetated riparian habitat and Drainage C-2 supports 0.13 acre of CDFG jurisdiction, of which 0.05 acre consists of vegetated riparian habitat. . Drainage C-1 flows south for approximately 756 linear feet before confluencing with Drainage C-2. Drainage C-2 flows south for 546 linear feet before accepting flows from Drainage C-1, then for 439 linear feet before discharging into a culvert under La Costa Avenue. Drainage Complex C supports a HWM averaging approximately four-feet wide and contains the presence of litter and debris, shelving, and changes in soil characteristics.

Drainage Complex C is moderately incised, predominately unvegetated, and consists of a sandy bottom. The adjacent upland areas are dominated by deerweed (*Lotus scoparius*), California sagebrush (*Artemesia californica*), California buckwheat (*Eriogonum fasciculatum*), mustard (*Brassica* sp.), brome grasses (*Bromus* sp.), oat grass (*Danthonia californica*), black sage (*Salvia mallifera*), white sage (*Salvia apiana*), rabbit's foot grass (*Polygon monspeliensis*), sour clover (*Melilotus indica*), spike rush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), bristly ox tongue (*Picis echioides*), and summer mustard (*Hirshfeldia incana*).

4. Drainage D:

Drainage D is an ephemeral feature that originates within the eastern portion of the Project area. The drainage supports approximately 0.01 acre of CDFG jurisdiction, none of which consists of vegetated riparian habitat, and flows from north to south for approximately 251 linear feet before flowing into an existing concrete ditch off-site.

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Drainage D supports an HWM averaging approximately one-foot wide and contains the presence of litter and debris, shelving, and changes in soil characteristics.

Drainage D is moderately incised, predominately unvegetated, and consists of a sandy bottom. The adjacent upland areas are dominated by deerweed (*Lotus scoparius*), California sagebrush (*Artemesia californica*), California buckwheat (*Eriogonum fasciculatum*), mustard (*Brassica* sp.), brome grasses (*Bromus* sp.), oat grass (*Danthonia californica*), black sage (*Salvia mallifera*), white sage (*Salvia apiana*), rabbit's foot grass (*Polygon monspeliensis*), sour clover (*Melilotus indica*), spike rush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), bristly ox tongue (*Picis echioides*), and summer mustard (*Hirshfeldia incana*).

ISOLATED FEATURE

Man-Made Non-Jurisdictional Water Quality Basin

A man-made isolated non-jurisdictional water quality basin is located adjacent to Rancho Santa Fe Road within the northern portion of the Project area. The basin supports approximately 0.15 acre of unvegetated waters and does not have a surficial connection with a CDFG jurisdictional streambed. Since the basin is not associated with a streambed, this feature does not fall within the CDFG's jurisdiction.

Table 2: CDFG Jurisdictional Area

Drainage Names	Unvegetated Streambed (Acres)	Riparian (Acres)	Total CDFG Jurisdiction (Acres)	Linear Feet of Drainage (Feet)
Drainage A	0.03	0.00	0.03	1,111
Drainage B	0.04	0.02	0.06	877
Drainage C	0.15	0.19	0.34	1,742
Drainage D	0.01	0.00	0.01	251
TOTAL	0.23	0.21	0.44	3,981

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IV. DISCUSSION

A. Impact Analysis- Corps

Construction of the Project, as proposed, will permanently impact 0.41 acre of potentially jurisdictional Corps non-RPWs, of which 0.06 acre exhibits wetland characteristics. This includes permanent impacts to 3,037 linear feet of potential Corps streambed. Table Three below outlines permanent impacts to potential Corps non-RPWs. Exhibit 5 illustrates impacts to Corps jurisdiction.

Table 3: Potential Corps Non-RPW Impacts

Drainage Name	Potential Corps Non-RPWs (Acres)	Potential Corps Waters Exhibiting Wetland Characteristics (Acres)	Total Potential Corps Non-RPW Jurisdiction (Acres)	Total Potential Corps Non-RPWs Impacted	Total Linear Feet Of Potential Corps Non-RPWs (Feet)	Total Linear Feet of Potential Corps Non-RPW Impacted (Feet)
Drainage A	0.01	0.00	0.01	0.01	167	167
Drainage B	0.04	0.02	0.06	0.06	877	877
Drainage C	0.14	0.04	0.18	0.18	1,742	1,742
Drainage D	0.01	0.00	0.01	0.01	251	251
Man-Made Water Quality Basin	0.15	0.00	0.15	0.15	N/A	N/A
TOTAL	0.35	0.06	0.41	0.41	3,037	3,037

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B. Impact Analysis- CDFG

Construction of the Project, as proposed, will permanently impact 0.44 acre of CDFG jurisdiction, of which 0.21 acre consists of vegetated riparian habitat. This includes permanent impacts to 3,981 linear feet of CDFG streambed. Table Four below outlines permanent impacts to CDFG jurisdiction. Exhibit 5 illustrates impacts to CDFG jurisdiction.

Table 4: CDFG Impacts

Drainage Names	CDFG Unvegetated Streambed (Acres)	CDFG Vegetated Riparian Habitat (Acres)	Total CDFG Jurisdiction (Acres)	Total CDFG Impacts (Acres)	Linear Feet of Drainage (Feet)	Linear Feet of Impacts (Feet)
Drainage A	0.03	0.00	0.03	0.03	1,111	1,111
Drainage B	0.04	0.02	0.06	0.06	877	877
Drainage C	0.15	0.19	0.34	0.34	1,742	1,742
Drainage D	0.01	0.00	0.01	0.01	251	251
TOTAL	0.23	0.21	0.44	0.44	3,981	3,981

If you have any questions about this letter report, please contact Darlene Shelley or myself at (949) 837-0404, Ext. 24 and 27 respectively.

Sincerely,



Martin Rasnick,
Regulatory Specialist
GLENN LUKOS ASSOCIATES, INC.

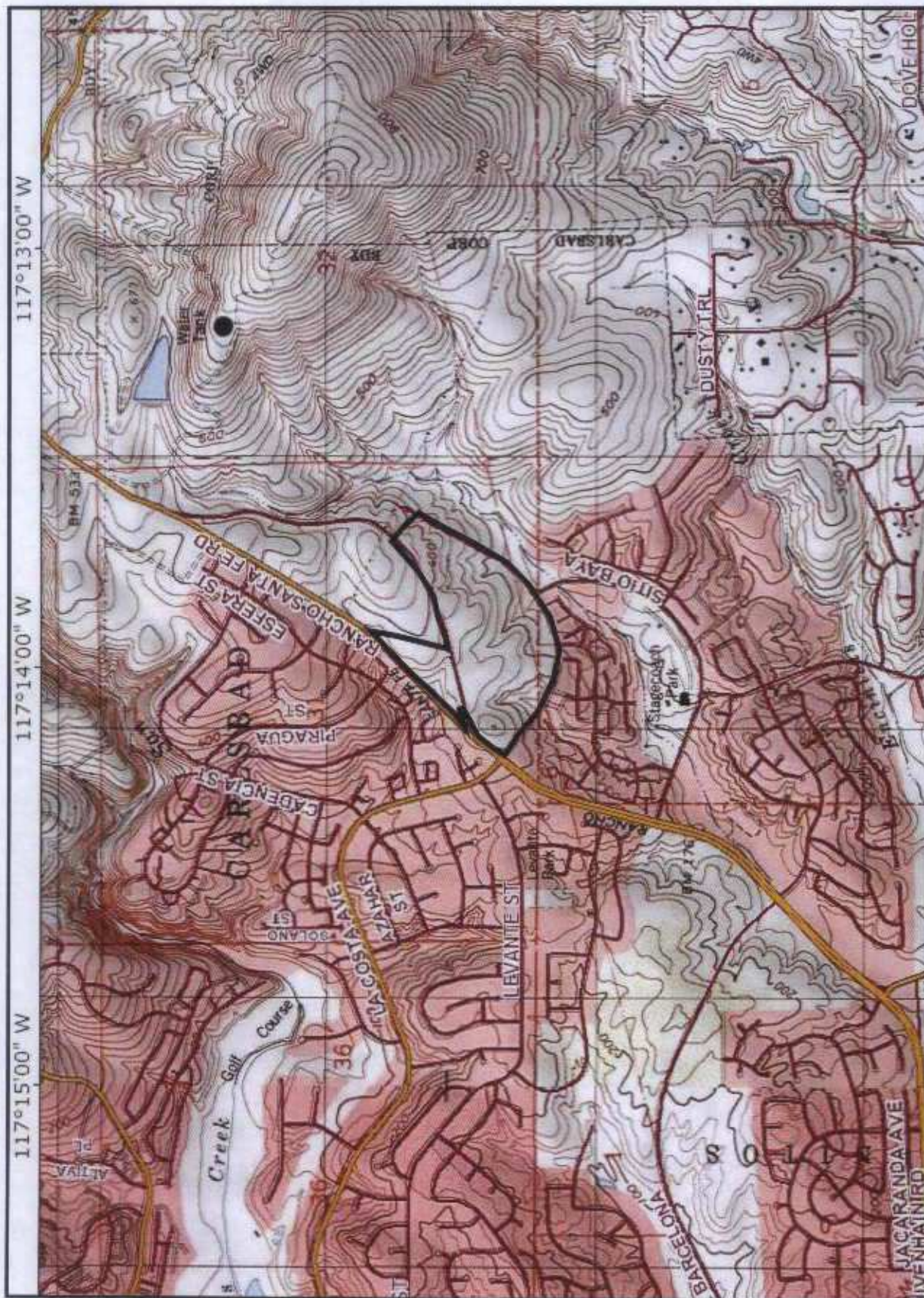


Adapted from USGS San Luis Rey quadrangle



LA COSTA TOWN CENTER

Regional Map



Adapted from USGS San Luis Rey quadrangle



LA COSTA TOWN CENTER

Vicinity Map



GLENN LUKOS ASSOCIATES

EXHIBIT 2



PHOTOGRAPH 1: View of wetland feature (W1) located in the central portion of the property. Drainage C runs through the small wetland habitat.



PHOTOGRAPH 2: View of Drainage C looking southward along the Project site. The wetland feature (W1) is visible in the background of this photograph.



GLENN LUKOS ASSOCIATES

EXHIBIT 4

LA COSTA TOWN CENTER

Site Photographs



PHOTOGRAPH 3: View looking in the southern direction at wetland features W2 and W3, located adjacent and at the basin of Drainage D1 and D2.



PHOTOGRAPH 4: View looking in the southern direction at Drainage D1, as it meanders through the southern portion of the drainage. Wetland features occur within the basin of the drainage.



GLENN LUKOS ASSOCIATES

EXHIBIT 4

LA COSTA TOWN CENTER

Site Photographs



PHOTOGRAPH 5: View of Drainage D2 looking towards the southern direction of the Project site.



PHOTOGRAPH 6: View of Drainage E facing the southeast direction along the Project site.



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EXHIBIT 4

LA COSTA TOWN CENTER

Site Photographs



WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: La Costa Town Square Property City/County: Carlsbad/ San Diego Sampling Date: October 12, 2007

Applicant/Owner: La Costa Town Center, LLC State: CA Sampling Point: 1

Investigator(s): Martin Rasnick, Justin Meyer Section, Township, Range: S 6, T 12S, R 3W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex Slope (%): none

Subregion (LRR): C Lat: 117°13'51"W Long: 33°04'53" N Datum: NAD 83

Soil Map Unit Name: San Miguel-Exchequer rocky silt loams 9-70% slopes (SnG) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u> </u>	
Remarks:		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Total Cover: _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum				
1. <u>Isocoma acradenia</u>	<u>15%</u>	<u>no</u>	<u>UPL</u>	
2. <u>Picis echioides</u>	<u>60%</u>	<u>yes</u>	<u>FAC*</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
Total Cover: <u>75%</u>				
Herb Stratum				
1. <u>Malvella leprosa</u>	<u>2%</u>	<u>no</u>	<u>FAC*</u>	
2. <u>Bromus hordeaceus</u>	<u>1%</u>	<u>no</u>	<u>UPL</u>	
3. <u>Juncus mexicanus</u>	<u>50 %</u>	<u>yes</u>	<u>OBL</u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
Total Cover: <u>53%</u>				
Woody Vine Stratum				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. _____	_____	_____	_____	
Total Cover: _____				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
% Bare Ground in Herb Stratum <u>47%</u> % Cover of Biotic Crust _____				
Remarks:				

SOIL

Sampling Point: 1

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		<input checked="" type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: La Costa Town Square Property City/County: Carlsbad/ San Diego Sampling Date: October 12, 2007
 Applicant/Owner: La Costa Town Center, LLC State: CA Sampling Point: 2
 Investigator(s): Martin Rasnick, Justin Meyer Section, Township, Range: S 6, T 12S, R 3W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex Slope (%): none
 Subregion (LRR): C Lat: 117°13'50"W Long: 33°04'52" N Datum: NAD 83
 Soil Map Unit Name: San Miguel-Exchequer Rocky silt loams 9-70% slopes NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u> </u>	
Remarks:		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
1. <u> </u>				
2. <u> </u>				
3. <u> </u>				
4. <u> </u>				
Total Cover: <u> </u>				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>1</u> x 1 = <u>1</u> FACW species <u>1</u> x 2 = <u>2</u> FAC species <u> </u> x 3 = <u> </u> FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>1</u> x 5 = <u>5</u> Column Totals: <u>4</u> (A) <u>12</u> (B) Prevalence Index = B/A = <u>12/4= 3</u>
Sapling/Shrub Stratum				
1. <u>Foeniculum vulgare</u>	<u>35%</u>	<u>yes</u>	<u>FACU</u>	
2. <u> </u>				
3. <u> </u>				
Total Cover: <u>35%</u>				
Herb Stratum				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Rumex crispus</u>	<u>1%</u>	<u>no</u>	<u>FACW</u>	
2. <u>Bromus hordeaceus</u>	<u>34%</u>	<u>no</u>	<u>UPL</u>	
3. <u>Juncus mexicanus</u>	<u>65 %</u>	<u>yes</u>	<u>OBL</u>	
4. <u> </u>				
5. <u> </u>				
6. <u> </u>				
7. <u> </u>				
Total Cover: <u>100%</u>				
Woody Vine Stratum				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u> </u>				
2. <u> </u>				
Total Cover: <u> </u>				
% Bare Ground in Herb Stratum <u> </u> % Cover of Biotic Crust <u> </u>				

Remarks:

Sampling Point: 2

HYDROLOGY

Arid West – Version 11-1-2006

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: La Costa Town Square Property City/County: Carlsbad/ San Diego Sampling Date: October 12, 2007
 Applicant/Owner: La Costa Town Center, LLC State: CA Sampling Point: 3
 Investigator(s): Martin Rasnick, Justin Meyer Section, Township, Range: S 6, T 12S, R 3W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex Slope (%): none
 Subregion (LRR): C Lat: 117°13'45"W Long: 33°04'55" N Datum: NAD 83
 Soil Map Unit Name: San Miguel-Exchequer Rocky silt loams 9-70% Slopes NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Salix lasiolepis</u>	<u>40</u>	<u>yes</u>	<u>FACW</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>40%</u>				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
Sapling/Shrub Stratum				
1. <u>Picis echioides</u>	<u>60%</u>	<u>yes</u>	<u>FAC*</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
Total Cover: <u>60%</u>				
Herb Stratum				
1. <u>Juncus mexicanus</u>	<u>100%</u>	<u>yes</u>	<u>OBL</u>	
2. <u>Xanthium strumarium</u>	<u>1%</u>	<u>no</u>	<u>FAC+</u>	
3. <u>Typha domingensis</u>	<u>2%</u>	<u>no</u>	<u>OBL</u>	¹ Indicators of hydric soil and wetland hydrology must be present.
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
Total Cover: <u>103%</u>				
Woody Vine Stratum				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
% Bare Ground in Herb Stratum <u> </u> % % Cover of Biotic Crust <u> </u>				
Remarks:				

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10 YR 4/2	95	5YR 4/6	5	C	PL	clay	sandy clay
7-10	10 YR 4/2	93	5YR 5/8	7	C	PL	clay	
10+	10 YR 4/2	60	5YR 5/6	40	C	PL	clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (LRR C)
☐ 1 cm Muck (A9) (LRR D)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

- ☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

1/8" salt crust

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☐ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☒ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Plowed Soils (C6)
☐ Other (Explain in Remarks)

- ☒ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☒ Drift Deposits (B3) (Riverine)
☒ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Thin Muck Surface (C7)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? Yes ☐ No ☒ Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: La Costa Town Square Property City/County: Carlsbad/ San Diego Sampling Date: October 12, 2007
 Applicant/Owner: La Costa Town Center, LLC State: CA Sampling Point: 4
 Investigator(s): Martin Rasnick, Justin Meyer Section, Township, Range: S 6, T 12S, R 3W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Convex Slope (%): none
 Subregion (LRR): C Lat: 117°13'18"W Long: 33°04'56" N Datum: NAD 83
 Soil Map Unit Name: San Miguel-Exchequer rocky silt loams 9-70% Slopes NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	
Remarks:	

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Salix lasiolepis</u>	<u>50</u>	<u>yes</u>	<u>FACW</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>50%</u>				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u> </u> x 1 = <u> </u> FACW species <u> </u> x 2 = <u> </u> FAC species <u> </u> x 3 = <u> </u> FACU species <u> </u> x 4 = <u> </u> UPL species <u> </u> x 5 = <u> </u> Column Totals: <u> </u> (A) <u> </u> (B) Prevalence Index = B/A = <u> </u>
Sapling/Shrub Stratum				
1. <u>Picis echinoides</u>	<u>10%</u>	<u>yes</u>	<u>FAC*</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>10%</u>				
Herb Stratum				Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Juncus mexicanus</u>	<u>100%</u>	<u>yes</u>	<u>OBL</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>100%</u>				¹ Indicators of hydric soil and wetland hydrology must be present.
Woody Vine Stratum				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u> </u>				
% Bare Ground in Herb Stratum <u> </u> % Cover of Biotic Crust <u> </u>				
Remarks:				

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10 Y 2/1	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No redox features present

HYDROLOGY

Wetland Hydrology Indicators:

Secondary Indicators (2 or more required)

Primary Indicators (any one indicator is sufficient)

- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input checked="" type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | <input type="checkbox"/> Shallow Aquitard (D3) |
| | | <input checked="" type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____Water Table Present? Yes _____ No X Depth (inches): _____Saturation Present? Yes _____ No X Depth (inches): _____
(includes capillary fringe)Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

MAN-MADE JURISDICTIONAL WATER
QUALITY BASIN

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: California County/parish/borough: San Diego City: Carlsbad
Center coordinates of site (lat/long in degree decimal format): Lat. 33 04'58" ° **N**, Long. 117 13' 58" ° **W**
Universal Transverse Mercator:

Name of nearest waterbody: Encinitas Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Batiquitos Lagoon

Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey- Escondido Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☐ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☒ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: **Established by OHWM**

Elevation of established OHWM (if known): Unknown.

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 30.5 square miles

Drainage area: 2.27 acres

Average annual rainfall: 10.21 inches

Average annual snowfall: 0.0 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☐ Tributary flows through Pick List tributaries before entering TNW.

Project waters are Pick List river miles from TNW.

Project waters are Pick List river miles from RPW.

Project waters are 2-5 aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: Project waters do not cross or serve as state boundaries.

Identify flow route to TNW⁵: N/A.

Tributary stream order, if known: N/A.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: The feature being assessed is an man-made jurisdictional

basin.

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Slightly eroding slopes.

Presence of run/riffle/pool complexes. Explain: N/A.

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: .

Other information on duration and volume: none.

Surface flow is: **Pick List**. Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

<input type="checkbox"/> Bed and banks	
<input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply):	
<input type="checkbox"/> clear, natural line impressed on the bank	<input type="checkbox"/> the presence of litter and debris
<input checked="" type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁷ Explain:	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input checked="" type="checkbox"/> High Tide Line indicated by:	<input checked="" type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Unknown, flowing water was not observed.

Identify specific pollutants, if known: Unknown.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings:
 - ☐ Fish/spawn areas. Explain findings:
 - ☐ Other environmentally-sensitive species. Explain findings:
 - ☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
 - ☐ Discrete wetland hydrologic connection. Explain: .
 - ☐ Ecological connection. Explain: .
 - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings:
 - ☐ Fish/spawn areas. Explain findings:
 - ☐ Other environmentally-sensitive species. Explain findings:
 - ☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: See Section III.A of the Jurisdictional Delineation Report.
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☒ Other non-wetland waters: 0.15 acres.

Identify type(s) of waters: man-made jurisdictional basin.

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

☐ Demonstrate that impoundment was created from "waters of the U.S.," or

☒ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or

☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰**

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.

☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

☐ which are or could be used for industrial purposes by industries in interstate commerce.

☐ Interstate isolated waters. Explain: .

☐ Other factors. Explain: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Jurisdictional Delineation Map.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: San Luis Rey- Escondido 18070303.
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute Rancho Santa Fe, California.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
☒ National wetlands inventory map(s). Cite name: <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps:06073C1053F (zone X- areas of 500-yr flood) .
☒ 100-year Floodplain Elevation is: approximately 200 feet above Mean Sea Level (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Google Earth 2007.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

DRAINAGE A

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: California County/parish/borough: San Diego City: Carlsbad
Center coordinates of site (lat/long in degree decimal format): Lat. 33 04' 52" ° N, Long. 117 14' 04" ° W
Universal Transverse Mercator:

Name of nearest waterbody: Encinitas Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Batiquitos Lagoon

Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey- Escondido Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☒ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 0.01 acre linear feet: 167 feet width (ft) and/or 1 foot wide acres.
Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

Elevation of established OHWM (if known): Unknown.

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 30.5 square miles

Drainage area: 5.75 acres

Average annual rainfall: 10.21 inches

Average annual snowfall: 0.00 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☒ Tributary flows through 2 tributaries before entering TNW.

Project waters are 2-5 river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 2-5 aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: Project waters do not cross or serve as state boundaries.

Identify flow route to TNW⁵: Storm Drain System>Unnamed Tributary>Encinitas Creek>Batiqitos Lagoon.

Tributary stream order, if known: Unknown.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:

☒ Natural

☐ Artificial (man-made). Explain:

☒ Manipulated (man-altered). Explain: Drainage A appears to have been altered through the

construction of a La Costa Avenue and its associated storm drain system.

Tributary properties with respect to top of bank (estimate):

Average width: 1 feet

Average depth: 1-2 feet

Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

☐ Silts

☒ Sands

☐ Concrete

☒ Cobbles

☒ Gravel

☐ Muck

☐ Bedrock

☐ Vegetation. Type/% cover:

☐ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Moderately eroding feature due to the presence of relatively vertical (1:1 to 2:1) slopes and the high sand content of the soil.

Presence of run/riffle/pool complexes. Explain: N/A.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 1-2 %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: Generally low volume wash that flows during storm events.

Other information on duration and volume: none.

Surface flow is: **Confined**. Characteristics:

Subsurface flow: **Unknown**. Explain findings:

☐ Dye (or other) test performed:

Tributary has (check all that apply):

☒ Bed and banks

☒ OHWM⁶ (check all indicators that apply):

☒ clear, natural line impressed on the bank

☒ changes in the character of soil

☐ shelving

☐ vegetation matted down, bent, or absent

☐ leaf litter disturbed or washed away

☒ sediment deposition

☐ water staining

☐ other (list):

☐ Discontinuous OHWM.⁷ Explain:

☒ the presence of litter and debris

☐ destruction of terrestrial vegetation

☒ the presence of wrack line

☐ sediment sorting

☒ scour

☐ multiple observed or predicted flow events

☐ abrupt change in plant community

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☒ High Tide Line indicated by:

☐ oil or scum line along shore objects

☐ fine shell or debris deposits (foreshore)

☐ physical markings/characteristics

☐ tidal gauges

☐ other (list):

☒ Mean High Water Mark indicated by:

☐ survey to available datum;

☐ physical markings;

☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Unknown, flowing water was not observed.

Identify specific pollutants, if known: Unknown.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width):
- ☐ Wetland fringe. Characteristics:
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings:
 - ☐ Fish/spawn areas. Explain findings:
 - ☐ Other environmentally-sensitive species. Explain findings:
 - ☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
 - ☐ Discrete wetland hydrologic connection. Explain: .
 - ☐ Ecological connection. Explain: .
 - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width):
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings:
 - ☐ Fish/spawn areas. Explain findings:
 - ☐ Other environmentally-sensitive species. Explain findings:
 - ☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: See Section III.A. of the Jurisdictional Delineation Report.
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

☒ Tributary waters: **0.01 acre** linear feet **167 feet** width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

☐ Demonstrate that impoundment was created from "waters of the U.S.," or

☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or

☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰**

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.

☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

☐ which are or could be used for industrial purposes by industries in interstate commerce.

☐ Interstate isolated waters. Explain: .

☐ Other factors. Explain: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Jurisdictional Delineation Map.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: San Luis Rey- Escondido 18070303.
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute Rancho Santa Fe, California.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
☐ National wetlands inventory map(s). Cite name: <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps: 06073C1053F (zone X- areas of 500-yr flood) .
☒ 100-year Floodplain Elevation is: approximately 200 feet above mean sea level (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Google Earth 2007.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

DRAINAGE B

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: California County/parish/borough: San Diego City: Carlsbad
Center coordinates of site (lat/long in degree decimal format): Lat. 33 04' 52" ° **N**, Long. 117 13'53" ° **W**
Universal Transverse Mercator:

Name of nearest waterbody: Encinitas Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Batiquitos Lagoon

Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey- Escondido Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☒ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☒ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 0.06 acre linear feet: 877 feet between width (ft) and/or 2 feet wide acres.

Wetlands: 0.02 acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

Elevation of established OHWM (if known): Unknown .

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
Identify TNW: .

Summarize rationale supporting determination: .
2. **Wetland adjacent to TNW**
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 30.47 square miles
Drainage area: 0.76 acres
Average annual rainfall: 10.21 inches
Average annual snowfall: 0.00 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

- ☐ Tributary flows directly into TNW.
☒ Tributary flows through 2 tributaries before entering TNW.

Project waters are 2-5 river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 2-5 aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: Project waters do not cross or serve as state boundaries.

Identify flow route to TNW⁵: Storm Drain System>Unnamed Tributary>Encinitas Creek>Baticuitos Lagoon.

Tributary stream order, if known: Unknown.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural

☐ Artificial (man-made). Explain:

☒ Manipulated (man-altered). Explain: Drainage B appears to have been altered through the construction of La Costa Avenue and its associated storm drain system.

Tributary properties with respect to top of bank (estimate):

Average width: 2-3 feet

Average depth: 1-2 feet

Average side slopes: **2:1**

Primary tributary substrate composition (check all that apply):

☐ Silts

☒ Sands

☐ Concrete

☒ Cobbles

☒ Gravel

☐ Muck

☒ Bedrock

☒ Vegetation. Type/% cover: riparian grasses/ 10-25%

☐ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Moderately eroding feature due to the presence of relatively vertical (1:1 to 2:1) slopes and the high sand content of the soil.

Presence of run/riffle/pool complexes. Explain: N/A.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 1-2 %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: Generally low volume wash that flows during storm events.

Other information on duration and volume: none.

Surface flow is: **Confined**. Characteristics:

Subsurface flow: **Unknown**. Explain findings:

☐ Dye (or other) test performed:

Tributary has (check all that apply):

☒ Bed and banks

☒ OHWM⁶ (check all indicators that apply):

☒ clear, natural line impressed on the bank

☒ changes in the character of soil

☒ shelving

☒ vegetation matted down, bent, or absent

☐ leaf litter disturbed or washed away

☒ sediment deposition

☐ water staining

☐ other (list):

☐ Discontinuous OHWM.⁷ Explain:

☒ the presence of litter and debris

☒ destruction of terrestrial vegetation

☒ the presence of wrack line

☐ sediment sorting

☒ scour

☐ multiple observed or predicted flow events

☐ abrupt change in plant community

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☒ High Tide Line indicated by:

☐ oil or scum line along shore objects

☐ fine shell or debris deposits (foreshore)

☐ physical markings/characteristics

☐ tidal gauges

☐ other (list):

☒ Mean High Water Mark indicated by:

☐ survey to available datum;

☐ physical markings;

☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Unknown, flowing water was not observed.

Identify specific pollutants, if known: Unknown.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width):
- ☒ Wetland fringe. Characteristics: Wetland is confined to the moderately incised channel where the water table is within 12 inches of the surface. Wetland plant species include Mexican Rush, rabbit's foot grass, and curly dock/ 10-25% .
- ☐ Habitat for:
- ☐ Federally Listed species. Explain findings:
- ☐ Fish/spawn areas. Explain findings:
- ☐ Other environmentally-sensitive species. Explain findings:
- ☐ Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: north wetland is 0.006 acres and south wetland is 0.014 acres

Wetland type. Explain: In-channel wetland dominated by non-native grasses and native rushes .

Wetland quality. Explain: Low quality wetland, limited in size (874 square feet cumulatively), that receives water flow during a storm event or nuisance flow .

Project wetlands cross or serve as state boundaries. Explain: The wetland does not cross or serve as state boundaries..

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: The tributary receives water flow during a storm event or nuisance flow.

Surface flow is: **Confined**

Characteristics:

Subsurface flow: **Unknown**. Explain findings:

☐ Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain:

☐ Ecological connection. Explain:

☐ Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **2-5** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **500-year or greater** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Unknown, water flow has not been observed.

Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

☐ Riparian buffer. Characteristics (type, average width):

☒ Vegetation type/percent cover. Explain: Wetland plant species include Mexican Rush, rabbit's foot grass, and curly dock

☐ Habitat for:

☐ Federally Listed species. Explain findings:

☐ Fish/spawn areas. Explain findings:

☐ Other environmentally-sensitive species. Explain findings:

☐ Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **2**

Approximately (0.02) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Y Non-RPW	0.006	Y Non-RPW	0.14

Summarize overall biological, chemical and physical functions being performed: The wetland is limited in the biological, chemical, and physical functions due to the limited size (square feet) of the wetland which receives water flow during a storm event or nuisance flow..

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: N/A.
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: See Section III A of the Significant Nexus Analysis.
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☒ Tributary waters: **0.06** linear feet **877** width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☒ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: **0.02** acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Jurisdictional Delineation Map.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps:
☐ Corps navigable waters' study:
☒ U.S. Geological Survey Hydrologic Atlas: San Luis Rey- Escondido 18070303.
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute Rancho Santa Fe, California.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
☒ National wetlands inventory map(s). Cite name: <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps:06073C1053F (zone X-areas of 500 yr flood) .
☒ 100-year Floodplain Elevation is: approximately 200 feet above mean sea level (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☒ Aerial (Name & Date): Google Earth 2007.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

DRAINAGE COMPLEX C

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: California County/parish/borough: San Diego City: Carlsbad
Center coordinates of site (lat/long in degree decimal format): Lat. 33 04' 56" ° **N**, Long. 117 13' 46" ° **W**.
Universal Transverse Mercator:

Name of nearest waterbody: Encinitas Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Batiquitos Lagoon

Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey- Escondido Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☒ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☒ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 0.18 acres linear feet: 1,742 feet between width (ft) and/or 3 feet wide acres.

Wetlands: 0.04 acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

Elevation of established OHWM (if known): Unknown.

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 30.47 square miles

Drainage area: 6.18 acres

Average annual rainfall: 10.21 inches

Average annual snowfall: 0.00 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☒ Tributary flows through 2 tributaries before entering TNW.

Project waters are 2-5 river miles from TNW.

Project waters are 1 (or less) river miles from RPW.

Project waters are 2-5 aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: Project waters do not cross or serve as state boundaries.

Identify flow route to TNW⁵: Storm Drain System>Unnamed Tributary>Encinitas Creek>Batiqitos Lagoon.

Tributary stream order, if known: Unknown.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Drainage Complex C appears to have been altered through the construction of La Costa Avenue, adjacent development, and an existing storm drain..

Tributary properties with respect to top of bank (estimate):

Average width: 4-5 feet
Average depth: 1-2 feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input checked="" type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input checked="" type="checkbox"/> Cobbles	<input checked="" type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input checked="" type="checkbox"/> Vegetation. Type/% cover: Riparian grasses and willow scrub/ 10-25%	
<input type="checkbox"/> Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Moderately eroding feature due to the presence of relatively vertical (1:1 to 2:1) slopes and the high sand content of the soil.

Presence of run/riffle/pool complexes. Explain: N/A.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 1-2 %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: Generally low volume wash that flows during storm events.

Other information on duration and volume: none.

Surface flow is: **Confined**. Characteristics:

Subsurface flow: **Unknown**. Explain findings:

☐ Dye (or other) test performed:

Tributary has (check all that apply):

<input checked="" type="checkbox"/> Bed and banks	
<input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply):	
<input checked="" type="checkbox"/> clear, natural line impressed on the bank	<input checked="" type="checkbox"/> the presence of litter and debris
<input checked="" type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input checked="" type="checkbox"/> shelving	<input checked="" type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input checked="" type="checkbox"/> scour
<input checked="" type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: .	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input checked="" type="checkbox"/> High Tide Line indicated by:	<input checked="" type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Unknown, flowing water was not observed.

Identify specific pollutants, if known: Unknown.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☒ Wetland fringe. Characteristics: Wetland is confined to the moderately incised channel where the water table is within 12 inches of the surface. Wetland plant species include Arroyo willow, Mexican Rush, rabbit's foot grass, and curly dock .
- ☐ Habitat for:
- ☐ Federally Listed species. Explain findings: .
- ☐ Fish/spawn areas. Explain findings: .
- ☐ Other environmentally-sensitive species. Explain findings: .
- ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.04 acres

Wetland type. Explain: In-channel wetland dominated by non-native grasses and native rushes .

Wetland quality. Explain: Low quality wetland, limited in size (1,750 square feet), that receives water flow during a storm event or nuisance flow .

Project wetlands cross or serve as state boundaries. Explain: The wetland does not cross or serve as state boundaries..

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: The tributary only receives water flow during a storm event or nuisance flow.

Surface flow is: **Confined**

Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☒ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are 2-5 river miles from TNW.

Project waters are 2-5 aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **500-year or greater** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Unknown, water flow has not been observed.

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

☐ Riparian buffer. Characteristics (type, average width): .

☒ Vegetation type/percent cover. Explain: Wetland plant species include Arroyo willow, Mexican Rush, rabbit's foot grass, and curly dock / 10-25% cover .

☐ Habitat for:

☐ Federally Listed species. Explain findings: .

☐ Fish/spawn areas. Explain findings: .

☐ Other environmentally-sensitive species. Explain findings: .

☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: 1

Approximately (0.04) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)
Y Non-RPW

Size (in acres)
0.04

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed: The wetland is limited in the biological, chemical, and physical functions due to the limited size (square feet) of the wetland, that only receives water flow during a storm event or nuisance flow..

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: N/A.
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: See Section III A of significant nexus analysis.
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
 - ☐ TNWs: linear feet width (ft), Or, acres.
 - ☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
 - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
 - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☒ Tributary waters: **0.18 acres** linear feet **1,742 feet** width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☒ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: **0.04** acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Jurisdictional Delineation Map.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: San Luis Rey- Escondido 18070303.
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute Rancho Santa Fe, California.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
☒ National wetlands inventory map(s). Cite name: <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps: 06073C1053F (zone X- areas of 500 year flood) .
☒ 100-year Floodplain Elevation is: approximately 200 feet above mean sea level (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Google Earth 2007.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

DRAINAGE D

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: California County/parish/borough: San Diego City: Carlsbad
Center coordinates of site (lat/long in degree decimal format): Lat. 33 05' 05" ° N, Long. 117 13' 39" ° W.
Universal Transverse Mercator:

Name of nearest waterbody: Encinitas Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Batiquitos Lagoon

Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey- Escondido Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☒ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 0.01 acre linear feet: 251 feet between width (ft) and/or 1 foot wide acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

Elevation of established OHWM (if known): Unknown .

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 30.5 square miles

Drainage area: 0.68 acres

Average annual rainfall: 10.21 inches

Average annual snowfall: 0.00 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☒ Tributary flows through 2 tributaries before entering TNW.

Project waters are 2-5 river miles from TNW.

Project waters are 1-2 river miles from RPW.

Project waters are 2-5 aerial (straight) miles from TNW.

Project waters are 1 (or less) aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: Project waters do not cross or serve as state boundaries.

Identify flow route to TNW⁵: Storm Drain System>Unnamed Tributary>Encinitas Creek>Batiqitos Lagoon.

Tributary stream order, if known: Unknown.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:

☒ Natural

☐ Artificial (man-made). Explain:

☒ Manipulated (man-altered). Explain: The off-site portions of Drainage D have been altered

through the construction of a concrete ditch accepting flows from the site and an off-site residential development. .

Tributary properties with respect to top of bank (estimate):

Average width: 1 feet

Average depth: 1-2 feet

Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

☐ Silts

☒ Sands

☐ Concrete

☒ Cobbles

☒ Gravel

☐ Muck

☐ Bedrock

☐ Vegetation. Type/% cover:

☐ Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Moderately eroding feature due to the presence of relatively vertical (1:1 to 2:1) slopes and the high sand content of the soil.

Presence of run/riffle/pool complexes. Explain: N/A.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 1-2 %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **2-5**

Describe flow regime: Generally low volume wash that flows during storm events.

Other information on duration and volume: none.

Surface flow is: **Confined**. Characteristics:

Subsurface flow: **Unknown**. Explain findings:

☐ Dye (or other) test performed:

Tributary has (check all that apply):

☒ Bed and banks

☒ OHWM⁶ (check all indicators that apply):

☒ clear, natural line impressed on the bank

☒ changes in the character of soil

☒ shelving

☐ vegetation matted down, bent, or absent

☐ leaf litter disturbed or washed away

☒ sediment deposition

☐ water staining

☐ other (list):

☐ Discontinuous OHWM.⁷ Explain:

☒ the presence of litter and debris

☐ destruction of terrestrial vegetation

☒ the presence of wrack line

☐ sediment sorting

☒ scour

☐ multiple observed or predicted flow events

☐ abrupt change in plant community

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☒ High Tide Line indicated by:

☐ oil or scum line along shore objects

☐ fine shell or debris deposits (foreshore)

☐ physical markings/characteristics

☐ tidal gauges

☐ other (list):

☐ Mean High Water Mark indicated by:

☐ survey to available datum;

☐ physical markings;

☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Unknown, flowing water was not observed.

Identify specific pollutants, if known: Unknown.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
 - ☐ Discrete wetland hydrologic connection. Explain: .
 - ☐ Ecological connection. Explain: .
 - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: See Section III.A. of the Jurisdictional Delineation Report.
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: N/A.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

☒ Tributary waters: **0.01 acres** linear feet **251 feet** width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
- ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Jurisdictional Delineation Map.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: San Luis Rey- Escondido 18070303.
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute Rancho Santa Fe, California.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
☒ National wetlands inventory map(s). Cite name: <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps:06073C1053F (zone X- areas of 500 year flood) .
☒ 100-year Floodplain Elevation is: approximately 200 feet above mean sea level (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): Google Earth 2007.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

1927 Fifth Avenue
San Diego, CA 92101-2358
P 619.308.9333 F 619.308.9334
www.recon-us.com

525 W. Wetmore Rd., Suite 111
Tucson, AZ 85705
P 520.325.9977 F 520.293.3051



August 12, 2008

Mr. Pat O'Day
O'Day Consultants
2710 Loker Avenue West, Suite 100
Carlsbad, CA 92008

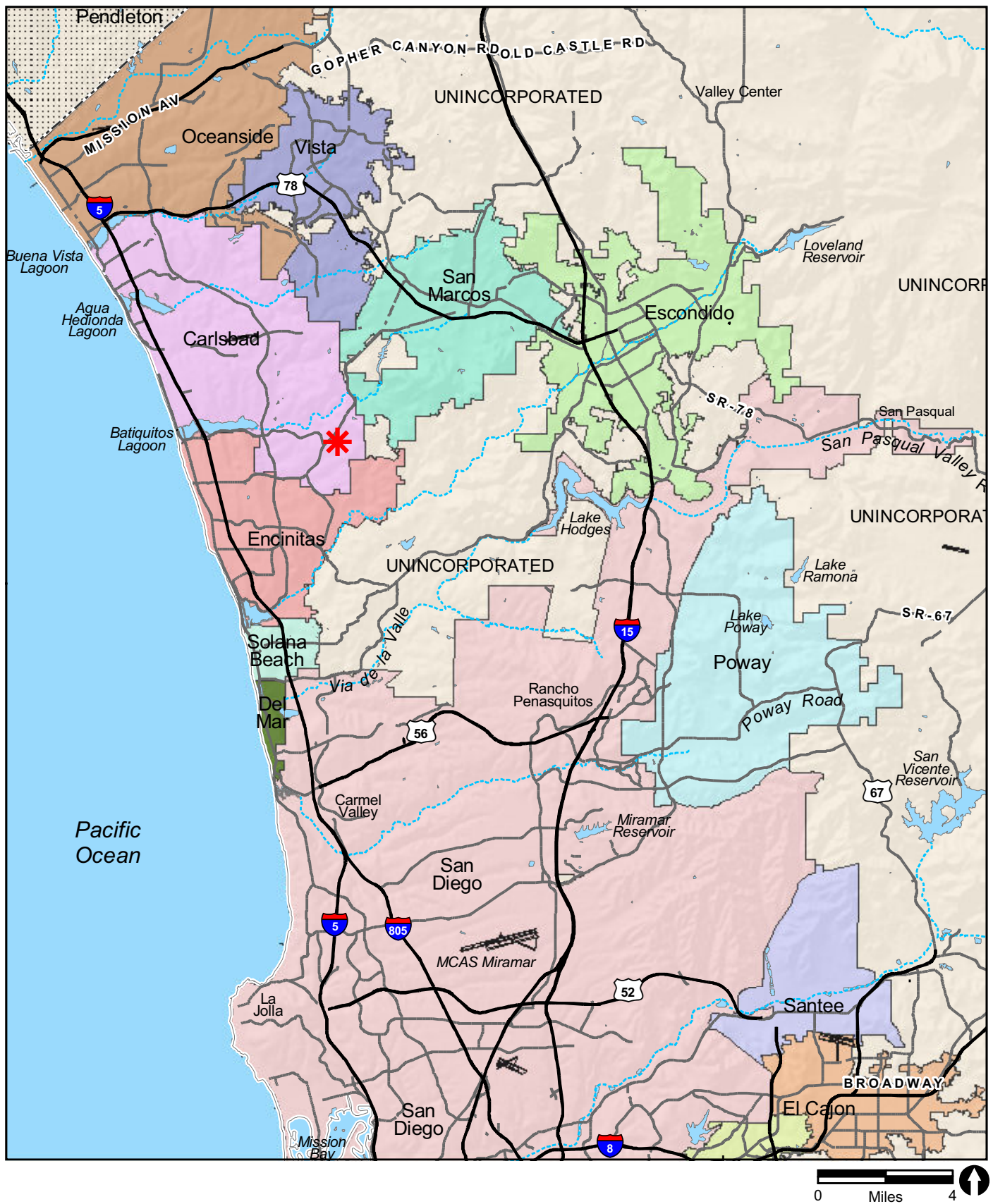
Reference: Revised Biological Report and Impact Analysis for the Off-Site Access Road for La Costa Town Square in Carlsbad, California (RECON Number 3465B)

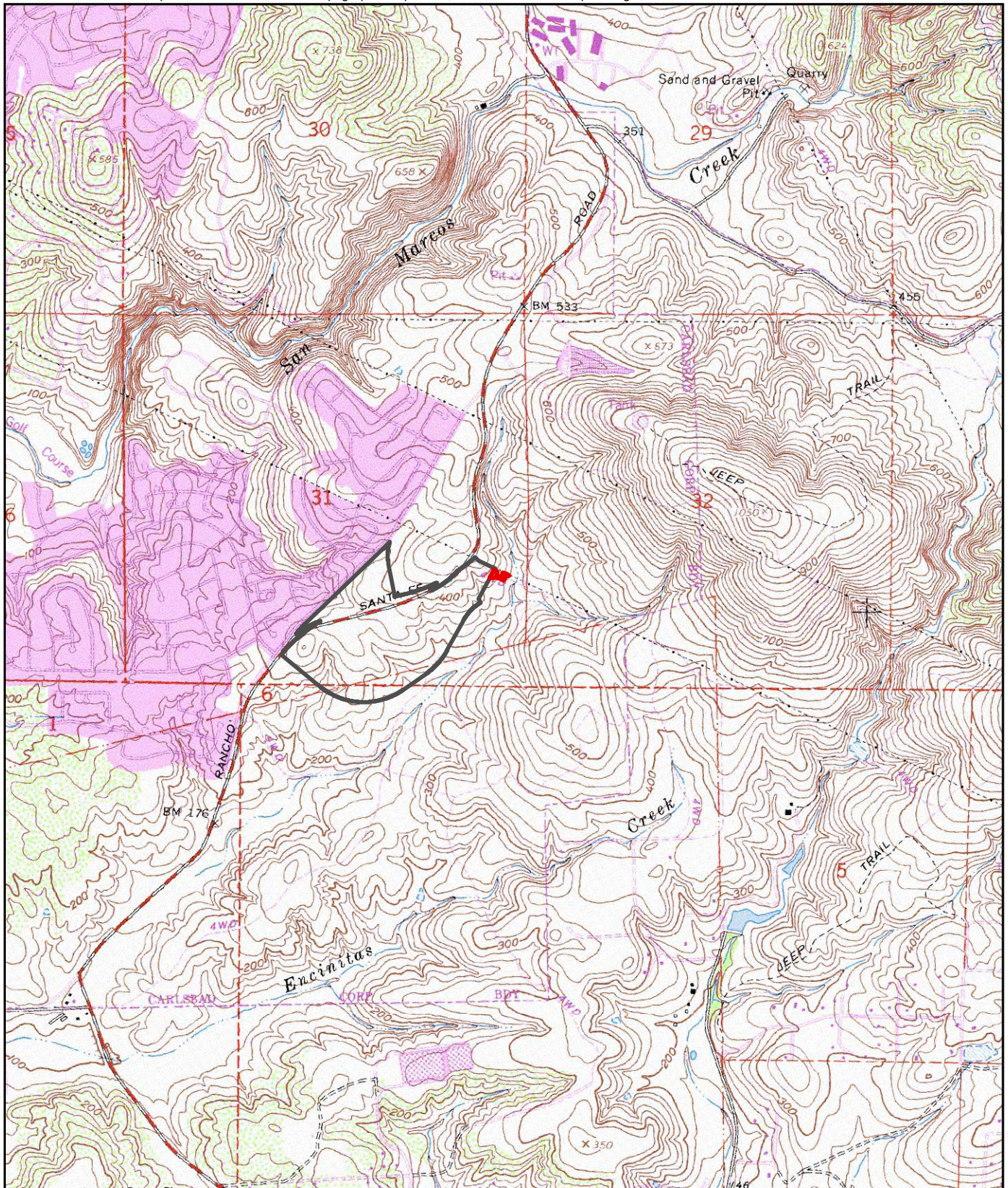
Dear Mr. O'Day:



RECON conducted a biological survey for the off-site access road to La Costa Town Square, Carlsbad, California (Figure 1). The proposed action consists of the connection of an existing residential street to the proposed La Costa Town Square site as a secondary circulation route and connection to the existing water main. The purpose of the survey was to assess the potential for sensitive plants, vegetation communities, and animals to occur on and adjacent to the property. This report provides the results of the biological survey, an impact analysis of the proposed project, and mitigation for significant impacts resulting from the proposed project.

The survey area is in Section 31 of Township 12 South, Range 3 West on the U.S. Geological Survey (USGS) Rancho Santa Fe 7.5-minute quadrangle (USGS 1983; Figure 2). The proposed access road is located east of Rancho Santa Fe Road (Figure 2) and would be an extension of the Sitio Lima cul-de-sac (Figure 3). The access road is located adjacent to the northeast corner of the proposed La Costa Town Square site and is south of a San Diego Gas and Electric (SDG&E) electrical transmission corridor (Figure 3). Residential development is present immediately adjacent and north, south and east of the proposed project area. The property crosses a small portion of an existing preserve hardline identified within the City of Carlsbad's Habitat Management Plan (HMP) (Figure 4).

The survey area supports an existing cul-de-sac and retaining wall, ornamental landscaping, and non-native grassland. The SDG&E easement located northeast of the proposed access road supports Diegan coastal sage scrub within 50 feet of the proposed work area. No sensitive plant species were observed during the survey or are expected to be impacted by the proposed project. No sensitive wildlife species were observed during the survey; however, there is a low potential for Cooper's hawks (*Accipiter cooperii*) to nest adjacent to the property. To avoid indirect impacts from construction noise, pre-construction surveys for nesting raptors within 300 feet of the proposed project are recommended, if construction is planned to occur during the breeding season of February 15 to August 15.





-  Access Road
-  La Costa Town Square Project Site

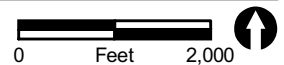
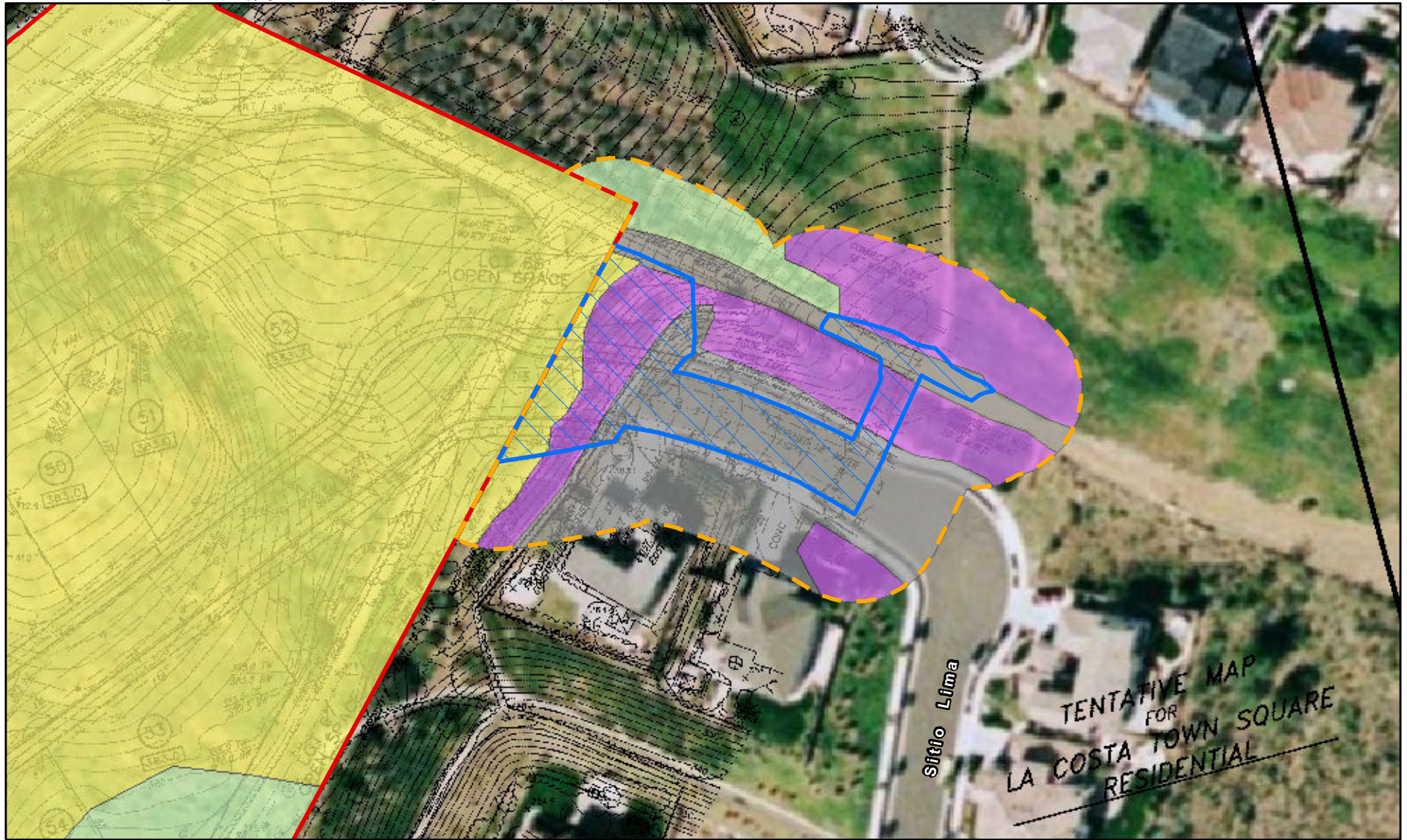


FIGURE 2

Project Location on USGS Map



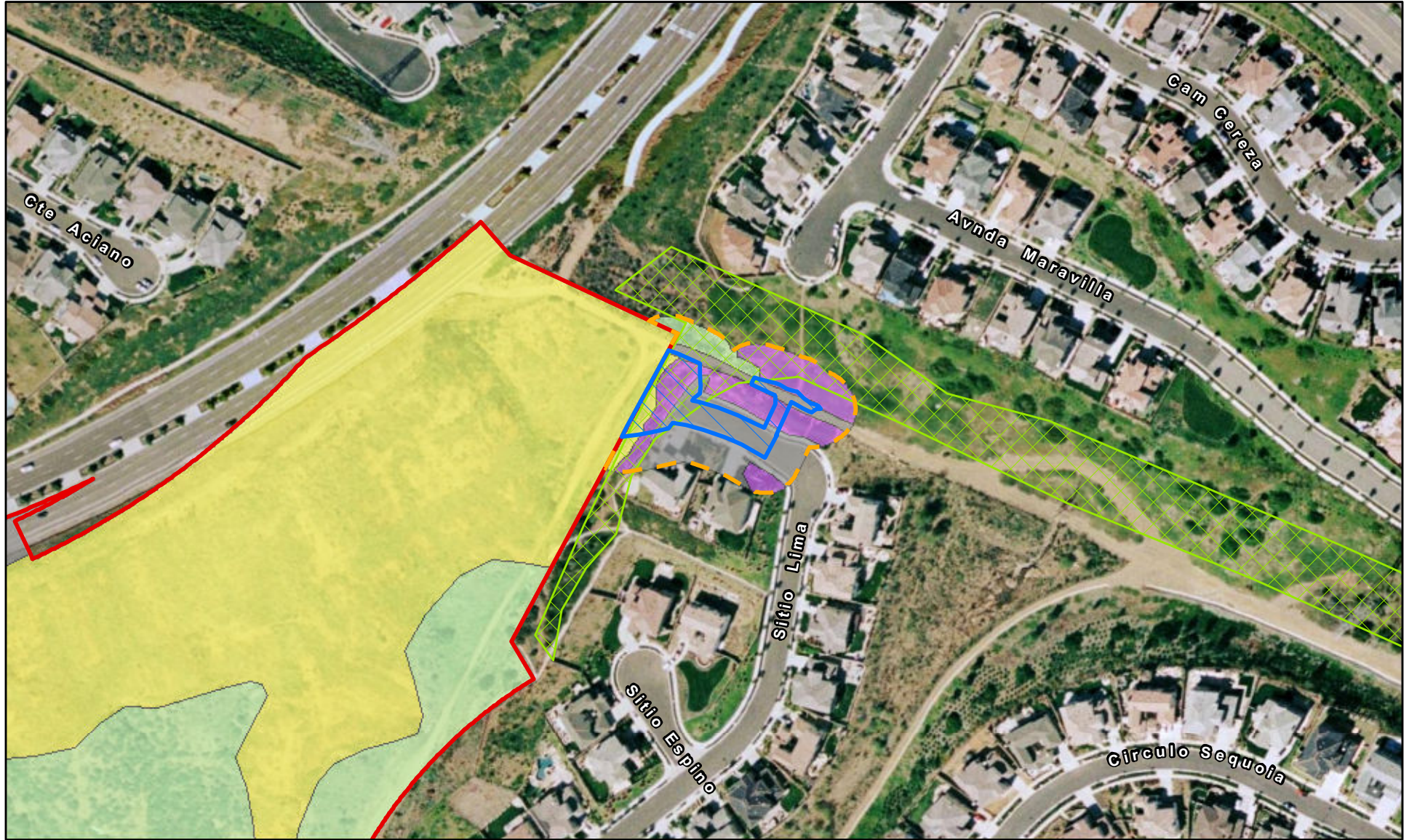
- La Costa Town Square Project Boundary
- Survey Area
- Off-Site Impacts

Vegetation Communities and Land Cover Types

- Coastal Sage Scrub
- Non-Native Grassland
- Landscaped
- Developed



FIGURE 3
Existing Biological Resources with Impacts



- La Costa Town Square Project Boundary
- Survey Area
- Off-Site Impacts
- Carlsbad HMP Existing Hardline

Vegetation Communities and Land Cover Types

- Coastal Sage Scrub
- Non-Native Grassland
- Landscaped
- Developed



FIGURE 4
City of Carlsbad Habitat
Management Plan in Project Vicinity

1.0 Survey Methods

RECON biologist Wendy Loeffler surveyed the approximately 1.24-acre survey area on May 24, 2008, to determine the general condition of the biological resources on-site and to assess whether the resources occurring or potentially occurring on-site would impose biological constraints to the construction of the off-site access road. The survey area includes the proposed access road and the connection to an existing water main buffered by 50 feet. The survey was conducted between 11:30 A.M. and 12:15 P.M. with a mixture of sun and clouds with rain having occurred earlier in the morning. Vegetation communities on-site were mapped on an aerial photograph at a scale of 1 inch equals 70 feet. In addition, a list of floral and faunal species observed on-site was recorded. A search for sensitive plants and animals that would have been apparent at the time of the survey was conducted in conjunction with the vegetation mapping. Animal species observed directly or detected from calls, tracks, scat, nests, or other signs were also noted.

Limitations to the compilation of a comprehensive floral checklist were imposed by seasonal factors, such as blooming period and rainfall. The wildlife surveys were limited by seasonal and temporal factors.

Floral nomenclature for common plants follows Hickman (1993) and for sensitive plants California Native Plant Society (CNPS; 2001). Vegetation community classifications follow Holland (1986). Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (1998) and Unitt (2004); for mammals with Jones et al. (1997); and for butterflies with Brown et al. (1992). Assessments of the sensitivity of species and vegetation communities are based primarily on City of Carlsbad (2004), CNPS 2001, State of California (2008a, 2008b, 2008c, 2008d, 2008e), and Holland (1986).

2.0 Topography and Soils

The proposed project survey area is located within a residential street, Sitio Lima, and includes the terminus of the road and a retaining wall. Above the retaining wall is a slope that connects to the adjacent property. The water main is located within the adjacent SDG&E easement, and the proposed connection is perpendicular to the road. Elevation on-site ranges from approximately 350 feet above mean sea level to approximately 375 feet above mean sea level at the top of the slope (USGS 1983).

One soil type, San Miguel–Exchequer rocky silt loams, 9- to 70-percent slopes, is the underlying soil originally mapped for the survey area (United States Department of Agriculture [USDA] 1973); however, much of the survey area has been converted to residences and associated roads and infrastructure.

3.0 Survey Results

Two vegetation community and two land cover types were identified on the 1.24-acre survey area: non-native grassland, Diegan coastal sage scrub, landscaped ornamental vegetation, and developed land. The location of each of these are shown on Figure 3 and described in Section 3.1. Attachment 1 lists the plant species observed during the biological surveys. Wildlife species observed are detailed below. A total of 15 plant species were identified within the survey area (see Attachment 1). Of this total, 7 (47 percent) species are native to southern California and 8 (53 percent) are introduced species (see Attachment 1). Wildlife species observed are common in developed urban areas of San Diego.

3.1 Vegetation Communities

Vegetation communities and land cover types that occur on-site are described below and shown on Figure 3.

Non-native grassland (0.07 acre) occurs along the upper slope above the cul-de-sac, retaining wall, and landscaped ornamental plantings. This area is dominated by wild oat (*Avena* sp.) intermixed with other non-native grasses, black mustard (*Brassica nigra*), and fennel (*Foeniculum vulgare*). A few native plants, including golden tarplant (*Deinandra fasciculata*) and California sagebrush (*Artemisia californica*), are scattered within this community.

Approximately 0.10 acre of Diegan coastal sage scrub is located within the adjacent SDG&E easement to the northeast. This community is dominated by California sagebrush and California buckwheat (*Eriogonum fasciculatum*).

Landscaped ornamental vegetation covers the slope above the retaining wall at the end of the street. This area is dominated by myoporum (*Myoporum pacificum*), a prostrate plant commonly used as a ground cover on landscaped slopes. This area covers approximately 0.51 acre of the survey area.

The remaining land within the survey area consists of the existing road, Sitio Lima, and two residences. This area covers 0.56 acre of the survey area.

3.2 Wildlife

The following five birds were observed during the survey and are typical of urban habitats in coastal San Diego County: black phoebe (*Sayornis nigricans*), cliff swallow (*Petrochelidon pyrrhonota tachina*), house finch (*Carpodacus mexicanus frontalis*), and lesser goldfinch (*Carduelis psaltria hesperophilus*). A red-tailed hawk (*Buteo jamaicensis*) was observed flying over the site. There is no suitable nesting habitat present for this species and foraging habitat is limited within the access road survey area.

No mammals, reptiles, or amphibians were detected within the survey area. The area does not provide suitable habitat to support amphibians; however, there is a potential that small mammals or reptiles could use or cross over the survey area.

4.0 Sensitivity Criteria

Local, state, and federal agencies regulate sensitive species and require an assessment of their presence or potential presence to be conducted in the study area prior to the approval of proposed development. For purposes of this report, species will be considered sensitive if they are: (1) listed or proposed for listing by state or federal agencies as threatened or endangered; (2) on List 1B (considered endangered throughout its range) or List 2 (considered endangered in California but more common elsewhere) of the CNPS's *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001); (3) included on the City of Carlsbad HMP or Multiple Habitat Conservation Program (MHCP) list of species evaluated for coverage or list of narrow endemic plant species (City of Carlsbad 2004); or (4) considered rare, endangered, or threatened by the State of California (2008a, 2008b, 2008c, 2008d, 2008e) or other local conservation organizations or specialists. Noteworthy plant species are considered to be those which are on List 3 (more information about the plant's distribution and rarity needed) and List 4 (plants of limited distribution) of the CNPS *Inventory*. Sensitive habitat types are those identified by the HMP (City of Carlsbad 2004) or Holland (1986) or considered sensitive by other resource agencies.

Raptors (birds of prey) and active raptor nests are protected by the California Fish and Game Code 3503.5, which states that it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized (CDFG 1991).

4.1 Sensitive Biological Resources

Two communities, Diegan coastal sage scrub and non-native grassland, are considered sensitive by the City of Carlsbad and/or resource agencies due to either restricted range, ability to support sensitive species, or cumulative losses throughout the region.

No sensitive plants or narrow endemic plant species were observed during the surveys or are expected to occur on or adjacent to the property. Attachment 2 provides a list of narrow endemic and sensitive plant species that are known from the region and are considered sensitive biological resources by the City of Carlsbad (City of Carlsbad 2004). Attachment 2 also summarizes the status, habitats, and likelihood of occurrence for these sensitive species. Attachment 3 defines the sensitivity codes used in Attachment 2.

No sensitive wildlife were observed or detected during the survey. Attachment 4 provides a list of sensitive wildlife species that are known from the region. Attachment 4 also summarizes the status, habitats, and likelihood of occurrence for these sensitive species. The coastal California gnatcatcher (*Poliophtila californica californica*) is known from the adjacent La Costa Town Square property, and there is some suitable coastal sage scrub habitat in the survey area within the SDGE easement. In addition, there is a potential for Cooper's hawk, an HMP-covered species, to be present on the adjacent lands.

The upper slope of the survey area supports non-native grassland directly adjacent to the La Costa Town Square parcel that is currently undeveloped. While there is potential for raptors and owls to occur on the adjacent parcel, the potential for foraging within the survey area is low due to the narrow and small size of the vegetation community. There is also no suitable nesting habitat for raptors or owls within the survey area; however, there is a potential that raptors could nest on the adjacent areas within the non-native grasslands or in the trees planted within the residential houses nearby.

4.2 City of Carlsbad HMP

The HMP is a subarea plan in affiliation with the MHCP (SANDAG 2003), a comprehensive, multi-jurisdictional regional habitat conservation plan for northwestern San Diego County.

The HMP is a comprehensive, citywide program identifying how the City of Carlsbad, in cooperation with federal and state wildlife agencies, can preserve the diversity of habitat and protect sensitive biological resources within the City of Carlsbad while allowing for additional development consistent with the City of Carlsbad General Plan and Growth Management Plan. The City has been issued permits and authorization by USFWS and CDFG for the incidental take of sensitive species in conjunction with private development projects, public projects, and other activities consistent with the HMP.

The survey area is within the southern portion of Local Facilities Management Zone (Zone) 11, which contains a portion of Core Area 7, Special Resource Area 3, and existing hardline preserve areas. Core Area 7 was identified based on the number of coastal California gnatcatchers known from this area and the large patches of suitable habitat present located within this portion of the City and the lands to the southeast.

The survey area is located within Core Area 7 and does cross a small portion of an existing hardline preserve area (City of Carlsbad 2004) (see Figure 4). However, this road extension right-of-way was dedicated on the final approved maps for the development directly south of the proposed La Costa Town Square and thus the boundary of HMP Preserve may need to be adjusted to be consistent with the approved map. The isolated patches of hardline preserve in this immediate area could serve as small habitat islands that would facilitate the movement of birds from the larger open space patches located north of the survey area to the preserved canyons located to the south (see Figure 4).

5.0 Project Impacts

The proposed project includes the connection of an existing residential street to the proposed La Costa Town Square site as a secondary circulation route (see Figure 3) and a connection to the existing water main. The biological impacts of the project were assessed according to guidelines set forth in the HMP (City of Carlsbad 2004b) and California Environmental Quality Act (CEQA). Mitigation is required for impacts that are considered significant under the HMP and CEQA guidelines.

5.1 Vegetation Communities

The proposed project will impact a total of approximately 0.34 acre as detailed in Table 1.

TABLE 1
PROPOSED PROJECT IMPACTS

Vegetation Communities/ Land Cover Types	Existing On-site (acres)	Proposed On-site Impacts (acres)
Non-native grassland	0.07	0.04
Diegan coastal sage scrub	0.10	0
Landscaped ornamental	0.28	0.11
Developed	0.47	0.19
TOTAL	1.24	0.34

5.2 Wildlife

The proposed project may displace general wildlife, and a few small mammals with low mobility may be inadvertently killed during construction. Impacts to general wildlife are considered less than significant.

Temporary indirect impacts during construction are expected to include an increase in noise due to an increase in vehicular traffic, and an increase in litter and pollutants into adjacent wildlife habitat. Because these impacts are temporary and are not expected to reduce the wildlife populations of the area below self-sustaining levels, these impacts are considered less than significant. Permanent indirect impacts associated with the road may include an increase in night lighting and traffic into adjacent wildlife habitat. These impacts are not expected to reduce the general wildlife populations of the area below self-sustaining levels and are thus considered less than significant.

5.3 Sensitive Biological Resources

Impacts to 0.04 acre of non-native grassland would be considered significant and would require mitigation.

No sensitive plants or narrow endemic plant species are expected to occur on-site; therefore, no impacts to sensitive plants are expected.

The project will not result in the direct clearing of occupied coastal California gnatcatcher habitat, thus there will be no significant direct impacts to this species.

Cooper's hawk has a low potential to nest within the landscaped trees on the adjacent property within 300 feet. If construction activities occur during the Cooper's hawk breeding season, February 15 to August 15 (Unitt 2004), noise from construction equipment could potentially impact an active nest if present within 300 feet of construction activities (City of Carlsbad 2004). Any impacts to an active Cooper's hawk nest would be considered significant.

There is no expectation for raptors to nest within the project impact area; thus there would be no direct impacts to active raptor nests protected under the California Fish and Game Code.

5.4 City of Carlsbad HMP

5.4.1 City of Carlsbad HMP Preserve

The proposed project will impact 0.16 acre of existing hardline preserve. However, this road extension right-of-way was dedicated on the final approved maps for the development directly south of the proposed La Costa Town Square, and thus the boundary of HMP Hardline Preserve may need to be amended to be consistent with the approved map.

5.4.2 City of Carlsbad HMP Preserve Adjacency Standards

The proposed access road extension is located within and adjacent to an existing hardline preserve. The HMP identifies several issues that need to be addressed during the planning of a project in order to avoid negative impacts of development on adjacent open space preserve areas (City of Carlsbad 2004). The areas of concern are fire management, erosion control, landscaping, fencing, signs, and lighting, and predator and exotic species control. They are discussed below.

Fire Management. Brush management is required to be implemented around habitable structures and is not applicable for the proposed project.

Erosion Control. The Stormwater Management Plan identifies post-construction best management practices (BMPs) that will ensure that run-off is appropriately treated to minimize the potential for erosion. Construction-level BMPs will be implemented to prevent any silt entering the open space areas. In addition, construction will be conducted in accordance with the City's *grading ordinance and mandated erosion control measures*. Implementation of this project is not expected to result in erosion into the adjacent preserve.

Landscaping. Landscaping adjacent to the open space areas will encourage the use of a native plant palette consistent with the adjacent native vegetation communities, prohibit the use of ornamental invasive species, and limit the use of fertilizers to prevent excess run-off entering the open space. Irrigation should not be permanent, but should only be installed temporarily in order to ensure that the plants are established. In addition, the use of cultivars of native species will be prohibited to avoid genetic contamination of the native plant species in the preserve.

Fencing, Signs, and Lighting. Implementation of the road extension and water main connection will maintain and continue current uses in this area. Fencing and signs do not currently exist along the existing road, nor are they planned. Street lighting should be shielded or directed away from the open space areas, as safety allows, to avoid increasing the nighttime light input into the open space.

Predator and Exotic Species Control. The proposed road extension and water main connection is not expected to result in any additional predator or exotic species, and thus no control measures are proposed.

6.0 Mitigation

Mitigation is required for impacts that are considered significant, including impacts to listed species, sensitive vegetation communities and habitats, and wetlands. Mitigation is intended to reduce significant impacts to a level of less than significant. Mitigation measures typically employed include resource avoidance, habitat replacement, the off-site acquisition of habitat, or the on-site preservation and dedication of habitat. The recommended mitigation ratios in this document are based on both the HMP and CEQA guidelines.

6.1 Sensitive Vegetation Communities

Impacts to 0.04 acre of non-native grassland will be mitigated through payment of an in-lieu fee at a 0.5:1 mitigation ratio, totaling 0.02 acre. The per-acre fee is established by the Carlsbad City Council (City of Carlsbad 2004).

6.2 Sensitive Wildlife

To avoid potential indirect impacts to active Cooper's hawk nests, it is recommended that construction occur between August 16 and February 14, outside of the breeding season of this species. If construction must occur during the breeding season (February 15 to August 15), a pre-construction clearance survey should be conducted by a qualified biologist to ensure that there are no active raptor nests within 300 feet of construction activities. If an active nest is discovered within this buffer, construction activities will be restricted until a biologist has determined that the young are independent of the nest site.

6.3 City of Carlsbad HMP Preserve

A minor amendment to the HMP will need to be processed in order to recognize the dedicated road right-of-way as approved.

If you have any questions about the results of this report, please do not hesitate to contact me.

Sincerely,



Wendy Loeffler
Senior Biologist

WEL:eab

Attachments

References Cited

- American Ornithologists' Union
1998 *Check-list of North American Birds*. 7th ed. Washington, D.C.
- Brown, J. W., H. G. Real, and D. K. Faulkner
1992 *Butterflies of Baja California*. Lepidoptera Research Foundation, Inc., Beverly Hills, CA.

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2008c State and Federally Listed Endangered and Threatened Animals of California. The Resources Agency, California Department of Fish and Game. May.
2008d State and Federally Listed Endangered, Threatened, and Rare Plants of California. The Resources Agency, California Department of Fish and Game. July.
2008e Natural Diversity Data Base. Nongame-Heritage Program, California Department of Fish and Game, Sacramento.

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1993 *The Jepson Manual: Higher Plants of California.* University of California Press, Berkeley and Los Angeles.

Holland, Robert F.
1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Game. October.

Jones, J. K., D. C. Carter, H. H. Genoways, R. S. Hoffman, and D. W. Rice
1997 Revised Checklist of North American Mammals North of Mexico. *Occasional Papers of the Museum, Texas Tech University* 80:1-22.

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2003 Final MHCP. Prepared for The Multiple Habitat Conservation Program (MHCP). Prepared by AMEC Earth and Environmental, Inc. & Conservation Biology Institute. March.

Unitt, P.A.
2004 *San Diego County Bird Atlas.* Proceedings of the San Diego Society of Natural History, No. 39. San Diego Natural History Museum.

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1973 *Soil Survey, San Diego Area, California.* Edited by R. H. Bowman. Soil Conservation Service and Forest Service. December.

U.S. Geological Survey
1983 Rancho Santa Fe Quadrangle 7.5-Minute Topographic Map.

ATTACHMENTS

ATTACHMENT 1

**ATTACHMENT 1
PLANT SPECIES OBSERVED**

Scientific Name	Common Name	Habitat	Origin
ANGIOSPERMS: DICOTS			
AMARANTHACEAE	AMARANTH FAMILY		
<i>Chenopodium</i> sp.	goosefoot	NNG	I
<i>Salsola tragus</i> L.	Russian thistle, tumbleweed	NNG	I
APIACEAE (UMBELLIFERAE)	CARROT FAMILY		
<i>Foeniculum vulgare</i> Mill.	fennel	NNG, CSS	I
ASTERACEAE	SUNFLOWER FAMILY		
<i>Artemisia californica</i> Less.	California sagebrush	NNG, CSS	N
<i>Deinandra</i> [=Hemizonia] <i>fasciculata</i> (DC.) Greene	golden tarplant	NNG	N
<i>Eriophyllum confertiflorum</i> (DC.) A. Gray var. <i>confertiflorum</i>	golden-yarrow	CSS	N
BRASSICACEAE (CRUCIFERAE)	MUSTARD FAMILY		
<i>Brassica nigra</i> (L.) Koch.	black mustard	NNG	I
<i>Lobularia maritima</i> (L.) Desv.	sweet alyssum	LAND	I
FABACEAE (LEGUMINOSAE)	LEGUME FAMILY		
<i>Lotus scoparius</i> (Nutt. in Torrey & A. Gray) Ottley var. <i>scoparius</i>	California broom	NNG, CSS	N
MYOPORACEAE	MYOPORUM FAMILY		
<i>Myoporum pacificum</i>	Myoporum	LAND	I
POLYGONACEAE	BUCKWHEAT FAMILY		
<i>Eriogonum fasciculatum</i> Benth. var. <i>fasciculatum</i>	California buckwheat	CSS	N
ANGIOSPERMS: MONOCOTS			
POACEAE (GRAMINEAE)	GRASS FAMILY		
<i>Avena</i> sp.	wild oats	NNG, CSS	N
<i>Bromus madritensis</i> L. ssp. <i>rubens</i> (L.) Husnot	foxtail chess	NNG, LAND	I
<i>Lolium multiflorum</i> Lam.	Italian ryegrass	NNG, LAND	I
<i>Nassella</i> sp.	needlegrass	NNG	N

HABITATS

CSS = Diegan coastal sage scrub
 LAND = Landscaping, ornamentals
 NNG = Non-native grassland

OTHER TERMS

N = Native to locality
 I = Introduced species from outside locality

ATTACHMENT 2

ATTACHMENT 2
SENSITIVE PLANT SPECIES OBSERVED (†) OR WITH THE
POTENTIAL FOR OCCURRENCE ON THE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY AREA

Species	State/ Federal Status	CNPS List	City of Carlsbad/ North County	Habitat/Blooming Period	Comments
<i>Acanthomintha ilicifolia</i> San Diego thornmint	CE/FT	1B	HMP, NE/MHCP	Chaparral, coastal sage scrub, valley and foothill grassland/ clay soils; blooms Apr.– June.	Chaparral, coastal sage scrub, valley and foothill grassland/ clay soils. No suitable soils or habitat present within survey area and not expected to occur.
<i>Adolphia californica</i> California adolphia	–/–	2	–	Coastal sage scrub, chaparral/clay soils; blooms Dec.–May.	No suitable soils or habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Aphanisma blitoides</i> Aphanisma	–/–	1B	–	Coastal bluff scrub, coastal sage scrub/sandy soils; blooms Mar.–June.	Possibly extirpated in San Diego County. Not historically known from the area. No suitable habitat present; not expected to occur on-site.
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar manzanita	–/FE	1B	HMP, NE/MHCP	Coastal chaparral/sandy soils; blooms Dec.–Apr.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Artemisia palmeri</i> San Diego sagewort	–/–	4	–	Coastal sage scrub, chaparral, riparian scrub/sandy soils; blooms May–Sept.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Astragalus deanei</i> Dean's milk vetch	–/–	1B	–	Coastal sage scrub, chaparral, riparian scrub; blooms Feb.–May.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Atriplex pacifica</i> South Coast salt-scale	–/–	1B	–	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas; blooms Mar.–Oct.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Baccharis vanessae</i> Encinitas baccharis	CE/FT	1B	HMP, NE/MHCP	Chaparral; maritime/sandstone; blooms Aug.–Nov.	No suitable soils or habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.

ATTACHMENT 2
SENSITIVE PLANT SPECIES OBSERVED (†) OR WITH THE
POTENTIAL FOR OCCURRENCE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY AREA
(continued)

Species	State/ Federal Status	CNPS List	City of Carlsbad/ North County	Habitat/Blooming Period	Comments
<i>Brodiaea filifolia</i> Thread-eaved brodiaea	CE/FT	1B	HMP, NE/MHCP	Coastal sage scrub, valley and foothill grassland, vernal pools/clay soils; blooms Mar.–June.	No suitable soils or habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Ceanothus verrucosus</i> Wart-stemmed ceanothus	—/—	2	HMP	Chaparral; blooms Dec.–Apr.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> Del Mar Mesa sand aster	—/—	1B	HMP, NE/MHCP	Chaparral, coastal sage scrub/sandy soils; blooms May–Sept.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> Summer holly	—/—	1B	HMP	Chaparral; blooms Apr.–June.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	—/—	1B	HMP, NE/MHCP	Coastal sage scrub, coastal bluff scrub, chaparral, grasslands; clay/serpentine soils; blooms Apr.–June.	No suitable habitat present within survey area and not expected to occur.
<i>Dudleya viscida</i> Sticky-leaved liveforever	—/—	1B	HMP/MHCP	Coastal sage scrub, chaparral/clay soils; blooms May–June.	No suitable soils or habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Euphorbia misera</i> Cliff spurge	—/—	2	HMP	Maritime succulent scrub/rocky soils; blooms Dec.–Aug.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Ferocactus viridescens</i> Coast barrel cactus	—/—	2	HMP	Chaparral, coastal sage scrub, valley and foothill grassland; blooms May–June.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.

ATTACHMENT 2
SENSITIVE PLANT SPECIES OBSERVED (†) OR WITH THE
POTENTIAL FOR OCCURRENCE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY AREA
(continued)

Species	State/ Federal Status	CNPS List	City of Carlsbad/ North County	Habitat/Blooming Period	Comments
<i>Hazardia orcuttii</i> Orcutt's hazardia	—/—	1B	HMP, NE/MHCP	Chaparral, coastal sage scrub/ clay soils; blooms Aug.—Oct.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Lycium californicum</i> California box thorn	—/—	2	—	Coastal sage scrub, coastal bluff scrub; blooms Mar.—Aug.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Muilla clevelandii</i> San Diego goldenstar	—/—	1B	HMP, NE/MHCP	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools/clay soils; blooms May.	No suitable soils or habitat present within survey area and not expected to occur.
<i>Quercus dumosa</i> Nuttall's scrub oak	—/—	1B	HMP	Coastal sage scrub, chaparral/sandy, clay loam; blooms Feb.—Apr.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.
<i>Viguiera laciniata</i> San Diego County viguiera	—/—	4	—	Chaparral, coastal sage scrub; blooms Feb.—June.	No suitable habitat present within survey area and not expected to occur. Not observed and would have been apparent at the time of the survey.

NOTE: See Attachment 3 for explanation of sensitivity codes.

ATTACHMENT 3

ATTACHMENT 3 SENSITIVITY CODES

FEDERAL CANDIDATES AND LISTED PLANTS

FE	=	Federally listed, endangered	FPE	=	Federally proposed endangered
FT	=	Federally listed, threatened	FPT	=	Federally proposed threatened

STATE LISTED PLANTS

CE	=	State listed, endangered
CR	=	State listed, rare
CT	=	State listed, threatened

CITY OF CARLSBAD STATUS

HMP	=	Habitat Management Plan for Natural Communities in the City of Carlsbad
NE	=	Narrow endemic species in HMP

CALIFORNIA NATIVE PLANT SOCIETY

LISTS

1A	=	Species presumed extinct.
1B	=	Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2	=	Species rare, threatened, or endangered in California but which are more common elsewhere. These species are eligible for state listing.
3	=	Species for which more information is needed. Distribution, endangerment, and/or taxonomic information is needed.
4	=	A watch list of species of limited distribution. These species need to be monitored for changes in the status of their populations.

R-E-D CODES

R (Rarity)

1	=	Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time.
2	=	Occurrence confined to several populations or to one extended population.
3	=	Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

E (Endangerment)

1	=	Not endangered
2	=	Endangered in a portion of its range
3	=	Endangered throughout its range

D (Distribution)

1	=	More or less widespread outside California
2	=	Rare outside California
3	=	Endemic to California

ATTACHMENT 4

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING) ON THE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY AREA

Species	Status	Habitat	Comments
<u>Invertebrates</u> (Nomenclature from Mattoni 1990 and Opler and Wright 1999)			
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	FE, MHCP	Open, dry areas in foothills, mesas, lake margins. Larval host plant <i>Plantago erecta</i> . Adult emergence mid-January through April.	No suitable habitat present. No larval host plants detected on-site. Site is not within recommended survey area (USFWS 2002). Not expected to occur on-site.
Hermes copper <i>Lycaena hermes</i>	NE, MHCP, *	Chaparral and coastal sage scrub where host plant <i>Rhamnus crocea</i> occurs. Adult emergence late May to July.	No larval host plants detected on-site. Not expected to occur on-site.
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	FE, MHCP, *, HMP, NE	Vernal pools.	No suitable habitat detected on-site. Not expected to occur on-site.
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	FE, MHCP, *, HMP, NE	Vernal pools.	No suitable habitat detected on-site. Not expected to occur on-site.
<u>Reptiles</u> (Nomenclature from Crother 2001 and Crother et al. 2003)			
Coronado skink <i>Eumeces skiltonianus interparietalis</i>	CSC	Grasslands, open woodlands and forest, broken chaparral. Rocky habitats near streams.	No suitable habitat detected on-site. Not expected to occur on-site.
San Diego horned lizard <i>Phrynosoma coronatum blainvillii</i>	CSC, MHCP, *	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.	Marginally suitable habitat present due to small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils; low potential to occur within the survey area based only on presence of undeveloped lands immediately adjacent.
Belding's orange-throated whiptail <i>Cnemidophorus hyperythrus beldingi</i>	CSC, MHCP, HMP	Chaparral, coastal sage scrub with coarse sandy soils and scattered brush.	Marginally suitable habitat present due to small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils; low potential to occur within the survey area based only on presence of undeveloped lands immediately adjacent.

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING) ON THE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY AREA (continued)

Species	Status	Habitat	Comments
Silvery legless lizard <i>Anniella pulchra pulchra</i>	CSC	Herbaceous layers with loose soil in coastal scrub, chaparral, and open riparian habitats. Prefers dunes and sandy washes near moist soil.	Marginally suitable habitat present due to small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils; low potential to occur within the survey area based only on presence of undeveloped lands immediately adjacent.
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	CSC	Grasslands, chaparral, sagebrush, desert scrub. Found in sandy and rocky areas.	Marginally suitable habitat present due to small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils; low potential to occur within the survey area based only on presence of undeveloped lands immediately adjacent.
Red diamond rattlesnake <i>Crotalus ruber</i>	CSC	Desert scrub and riparian habitats, coastal sage scrub, open chaparral, grassland, and agricultural fields.	Marginally suitable habitat present due to small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils; low potential to occur within the survey area based only on presence of undeveloped lands immediately adjacent.
<u>Birds (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)</u>			
White-tailed kite (nesting) <i>Elanus leucurus</i>	CFP, *	Nest in riparian woodland, oaks, sycamores. Forage in open, grassy areas. Year-round resident.	No suitable nesting habitat and limited foraging opportunities detected within the survey area, though there is a potential for the species to occur on adjacent lands.
Northern harrier (nesting) <i>Circus cyaneus</i>	CSC, MHCP	Coastal lowland, marshes, grassland, agricultural fields. Migrant and winter resident, rare summer resident.	No suitable nesting habitat and limited foraging opportunities detected within the survey area, though there is a potential for the species to occur on adjacent lands.
Cooper's hawk (nesting) <i>Accipiter cooperii</i>	CSC, MHCP, HMP	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas. Migrant and winter visitor.	No suitable nesting habitat and limited foraging opportunities detected within the survey area, though there is a potential for the species to occur on adjacent lands.

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING) ON THE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY
AREA (continued)

Species	Status	Habitat	Comments
Golden eagle (nesting and wintering) <i>Aquila chrysaetos</i>	CSC, CFP, BEPA, MHCP	Require vast foraging areas in grassland, broken chaparral, or sage scrub. Nest in cliffs and boulders. Uncommon resident.	No suitable nesting or foraging habitat detected within the survey area, though there is a potential for the species to occur on adjacent lands.
Western burrowing owl (burrow sites) <i>Speotyto cunicularia hypugaea</i>	CSC, MHCP, HMP	Grassland, agricultural land, coastal dunes. Require rodent burrows. Declining resident.	No suitable nesting or foraging habitat detected within the survey area, and no burrows detected on adjacent property (RECON 2006).
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	SE, FE, MHCP, HMP	Nesting restricted to willow thickets. Also occupies other woodlands. Rare spring and fall migrant, rare summer resident. Extremely localized breeding.	No suitable habitat detected on-site. Not expected to occur on-site.
California horned lark <i>Eremophila alpestris actia</i>	CSC	Sandy shores, mesas, disturbed areas, grasslands, agricultural lands, sparse creosote bush scrub.	No suitable nesting or foraging habitat detected within the survey area, though this species was observed on the adjacent property (RECON 2006).
Coastal California gnatcatcher <i>Polioptila californica californica</i>	FT, CSC, MHCP, HMP	Coastal sage scrub, maritime succulent scrub. Resident.	No suitable habitat detected on-site; however, the species is known from the adjacent La Costa Town Square property (RECON 2006) and coastal sage scrub is present immediately adjacent within the SDG&E Easement to the north. Not expected to occur on-site, but could be present within 50 feet of the proposed work area.
Loggerhead shrike <i>Lanius ludovicianus</i>	CSC	Open foraging areas near scattered bushes and low trees.	No suitable nesting or foraging habitat detected within the survey area, though there is a potential for the species to occur on adjacent lands.
Least Bell's vireo (nesting) <i>Vireo bellii pusillus</i>	SE, FE, MHCP, HMP	Willow riparian woodlands. Summer resident.	No suitable habitat detected on-site. Not expected to occur on-site.

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING) ON THE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY
AREA (continued)

Species	Status	Habitat	Comments
Yellow warbler (nesting) <i>Dendroica petechia brewsteri</i>	CSC	Breeding restricted to riparian woodland. Spring and fall migrant, localized summer resident, rare winter visitor.	No suitable habitat detected on-site. Not expected to occur on-site.
Yellow-breasted chat (nesting) <i>Icteria virens</i>	CSC, MHCP	Dense riparian woodland. Localized summer resident.	No suitable habitat detected on-site. Not expected to occur on-site.
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	CSC, MHCP	Coastal sage scrub, chaparral. Resident. Sensitive to habitat fragmentation.	No suitable nesting or foraging habitat detected within the survey area, though this species was observed on the adjacent property (RECON 2006).
Bell's sage sparrow <i>Amphispiza belli belli</i>	CSC, MHCP	Chaparral, coastal sage scrub. Localized resident.	No suitable habitat detected on-site. Not expected to occur on-site.
Tricolored blackbird <i>Agelaius tricolor</i>	CSC, MHCP	Freshwater marshes, agricultural areas, lakeshores, parks. Localized resident.	No suitable habitat detected on-site. Not expected to occur on-site.
<u>Mammals</u> (Nomenclature from Jones et al. 1997 and Hall 1981)			
Pale big-eared bat <i>Corynorhinus townsendii pallescens</i>	CSC	Caves, mines, buildings. Found in a variety of habitats, arid and mesic. Individual or colonial. Extremely sensitive to disturbance.	No roosting habitat present; not expected to occur on-site.
Townsend's western big-eared bat <i>Corynorhinus townsendii townsendii</i>	CSC, MHCP	Caves, mines, buildings. Found in a variety of habitats, arid and mesic. Individual or colonial. Extremely sensitive to disturbance.	No roosting habitat present; not expected to occur on-site.
Western mastiff bat <i>Eumops perotis californicus</i>	CSC, MHCP	Woodlands, rocky habitat, arid and semiarid lowlands, cliffs, crevices, buildings, tree hollows.	No roosting habitat present; not expected to occur on-site.
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	CSC, MHCP	Open areas of scrub, grasslands, agricultural fields.	Moderately suitable habitat present; low to moderate potential to occur on-site, based on small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils.

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING) ON THE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY
AREA (continued)

Species	Status	Habitat	Comments
Pacific little pocket mouse <i>Perognathus longimembris pacificus</i>	FE, CSC, MHCP	Open coastal sage scrub; fine, alluvial sands near ocean.	No suitable soils, limited range; not expected to occur on-site.
Dulzura California pocket mouse <i>Chaetodipus californicus femoralis</i>	CSC	Brushy areas of coastal sage scrub, chamise-redshank & montane chaparral, sagebrush, annual grassland, valley foothill hardwood, valley foothill hardwood-conifer & montane hardwood. Probably most attracted to interface of grassland and brush.	Moderately suitable habitat present; low to moderate potential to occur on-site, based on small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils.
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	CSC, MHCP	San Diego County west of mountains in sparse, disturbed coastal sage scrub or grasslands with sandy soils.	Moderately suitable habitat present; low to moderate potential to occur on-site, based on small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	CSC	Coastal sage scrub and chaparral.	No nests detected and not expected to occur within the survey area.
Southern mule deer <i>Odocoileus hemionus fuliginata</i>	MHCP	Many habitats.	Marginally suitable habitat present due to small size, disturbed or altered nature of area, and lack of quality vegetation, habitat, and soils; low potential to occur within the survey area based only on presence of undeveloped lands immediately adjacent.

STATUS CODES

Listed/Proposed

FE = Listed as endangered by the federal government
FT = Listed as threatened by the federal government
SE = Listed as endangered by the state of California

Other

BEPA = Bald and Golden Eagle Protection Act
CFP = California fully protected species
CSC = California Department of Fish and Game species of special concern
HMP = City of Carlsbad Habitat Management Plan (HMP) covered species
NE = City of Carlsbad HMP narrow endemic species
MHCP = Multiple Habitat Conservation Program target species list

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES KNOWN (OR POTENTIALLY OCCURRING) ON THE LA COSTA TOWN SQUARE OFF-SITE ACCESS ROAD SURVEY
AREA (continued)

- * = Taxa listed with an asterisk fall into one or more of the following categories:
- Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines
 - Taxa that are biologically rare, very restricted in distribution, or declining throughout their range
 - Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California
 - Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands)